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# The Effects of Use of A Metacognitive Strategy on the Language Anxiety of Missionaries at the Missionary Training Center

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THE EFFECTS OF USE OF A METACOGNITIVE STRATEGY

ON THE LANGUAGE ANXIETY OF MISSIONARIES

AT THE MISSIONARY TRAINING CENTER

by

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GRADUATE COMMITTEE APPROVAL

of a thesis submitted by

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This thesis has been read by each member of the following graduate committee and by majority vote has been found to be satisfactory.

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# BRIGHAM YOUNG UNIVERSITY

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ABSTRACT

THE EFFECTS OF USE OF A METACOGNITIVE STRATEGY

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Language anxiety is a form of anxiety that can negatively affect language learners by disrupting their cognitive processing, by rendering their learning experience unpleasant, and by reducing the quantity and quality of their language production. The language anxiety research contains many suggestions for anxiety reduction, one of these being the use of metacognitive language learning strategies. The purpose of this study was to examine the effects of a self-monitoring, metacognitive strategy called ASWE on the language anxiety levels of young male and female missionaries in the intensive language learning program at the Missionary Training Center in Provo, Utah. The ASWE strategy includes four questions that the missionaries ask themselves during language learning activities: What am I trying to accomplish? What strategy am I using? How well is it working? What else could I do? The results of this study showed that ASWE use did

reduce language anxiety, though the missionaries were resistant to using the strategy. This resistance stemmed from the missionaries' perception of ASWE as irrelevant since its effects are indirect. Despite this resistance, ASWE use gradually increased over the course of the study as the missionaries became more comfortable using it. The results of the study also showed that language anxiety was not affected by the amount of time spent in the MTC, which indicates that language anxiety does not decrease simply because of increased exposure to the language learning process.

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Chapter 1

Introduction

Introduction to the Problem

With the current push for more communicative language learning courses, there has come a change in the methodological issues researchers and teachers face. Past research has often been concerned with finding "the" method for successful language learning, with the general focus often being more on what has been referred to as "talking about the language." Present research and findings in the language learning field indicate that there really is no "right " method for learning a foreign language. Rather, it seems to be coming clear that the focus should be on "real" communication, or the type of meaningful communication that exists in the real world. This focus takes into account aspects that were previously ignored or considered unnecessary to language learning, such as social and cultural aspects of language, fluency, the use of unrehearsed language, and lifelong learning after the classroom experience. Current techniques have been loosely grouped under the general term "communicative language teaching" (or CLT) which refers to an approach rather than to any particular method.

Though this approach allows for multiple methods, there are certain characteristics that pertain to it and that have been summed up by Nunan into a general definition. CLT is characterized by an emphasis on learning through interaction in the target language. This means that learners use "unrehearsed, mostly unplanned discourse" (Brown, 1994, p. 191) to communicate ideas in the target language. This entails greater authenticity, which is also fostered through the use of authentic texts. In addition to providing learning through real communication, CLT focuses on the learning process as

well and incorporates learners' background knowledge into the learning experience. In so doing, it allows for the creation of links between in-class learning and the real world, and helps students to better understand how the target language is used in real world communication.

In the CLT approach, learner strategy training takes on a crucial role in its orientation toward the individual learner. If it is to be optimally successful, however, the learner must be equipped to maximize her or his strategic investment, a term coined by Brown (p. 190) that refers to the investment of time and effort required for the mastery of any complex skill. He notes that learning a foreign language is the most complex set of skills that a learner can undertake, and that therefore, learner investment in the development and use of strategies becomes necessary for language mastery. Brown emphasizes that "in an era of interactive, intrinsically-motivated, learner-centered teaching, learner strategy training simply cannot be overlooked" (Brown, 1994, p. 190), since effective use of language learning strategies equips the learner to make the most of the language learning experience.

Implementing the CLT approach in language learning requires a change in classroom dynamics, a change that is not always perceived by students as positive. Instead of the more traditional teacher-centered instruction, the focus is learner-centered and structured so as to allow for more opportunities for target-language communication. While this increase in target language use is generally well-received, some students have the perception that it is worse than traditional approaches, from the standpoint of the learning experience itself. This could well be related to the fact that language use, particularly in the areas of listening and speaking, is a source of anxiety for many

students (Horwitz, Horwitz & Cope, 1986). For example, Phillips (1991) reports that the curriculum changes in favor of functional language and communicative ability can often exacerbate students' anxiety levels. Crookall and Oxford (1991) note that some students react with increased anxiety levels to changes in classroom structure and communication patterns, even if those changes are conducive to increased proficiency. For some students, increased focus on communication may simply translate into increases in the anxiety they already experience.

Statement of the Problem

Anxiety is a common phenomenon in language classrooms that is typically perceived as a threat to language learning. Horwitz (1986) has found that students generally experience significant levels of foreign language anxiety in at least some aspects of language learning. Campbell and Ortiz (1991) estimate that up to fifty percent of all language students experience debilitating levels of anxiety, and MacIntyre (1995) states that for many students, foreign language classes are the most anxiety-provoking courses that they take.

The type of anxiety most closely associated with foreign language acquisition is a debilitating form known as "foreign language anxiety" (also referred to simply as "language anxiety"). Horwitz, Horwitz and Cope (1986) suggest that foreign language anxiety can best be understood through parallels to three other performance anxieties which are not restricted to the foreign language environment: communication apprehension (fear of communicating in interpersonal situations), test anxiety (fear of failure), and fear of negative evaluation, or expectation of others' negative evaluation of

oneself (pp. 127-28). Horwitz et al. (1986) emphasize the fact that foreign language anxiety is not "simply a combination of these fears transferred to foreign language learning" (p. 128). Nor is it comparable to other situation anxieties, such as English class anxiety or mathematics anxiety. Rather, it is an anxiety that is unique to the language learning context because it challenges the learner's basic perception and definition of self in ways that English or mathematics anxieties do not. Indeed, the presence of foreign language anxiety can seriously hinder students' efforts to learn.

Learners, teachers, and researchers generally agree that there is a need to reduce the amount of language anxiety that learners experience, and many anxiety-reduction techniques and activities have been proposed. Horwitz (1988) suggests that instructors and students discuss the latter's language learning beliefs in order to help them set realistic goals. Crookall and Oxford (1991) suggest that teachers address language anxiety directly through the use of games and simulations, such as an "agony column" activity where students are encouraged to express their fears in order to receive helpful peer feedback. Phillips (1991) proposes using metacognitive learning strategies as a means of helping students control their own anxiety, much in the same way that strategies could be used in the language learning process itself.

The metacognitive strategies referred to by Phillips are those that involve the planning, organization, and evaluation of learning (Oxford, Lavine, and Crookall, 1989), and that provide learners with a general direction for language study. Studies conducted by Powell (1991) and Nyikos and Oxford (1993) indicate that the majority of students lack or ignore metacognitive skills. In Powell's study, most of the participants discovered that their greatest learning needs lay in the area of basic learning and thinking

skills, whereas Nyikos and Oxford found that students typically choose activities for the purpose of getting better grades, rather than for gaining communicative competence. O'Malley et al. (Rubin, 1987, p. 23) state that "students without metacognitive approaches are essentially learners without direction and ability to review their progress, accomplishment, and future learning directions." Phillips seems to suggest that metacognitive strategy training, by helping learners to find direction in their learning, can decrease their anxiety levels by giving them greater control and confidence.

Significance of the Problem

Language anxiety can significantly hinder students' learning efforts in several areas. Some of the principal difficulties that can arise from language anxiety include cognitive interference in processing language, discrepancy between proficiency and production, an unpleasant learning experience, and negative attitudes toward other languages and cultures. Additionally, language anxiety is not personality specific and has the potential to affect any learner at any point during language learning. Clearly, anxiety's effects on language learners should not be underestimated.

Language anxiety creates cognitive interference by obstructing language acquisition and processing. It reduces the amount of information that learners mentally take in, resulting in less information that is available for processing, and disrupts concentration (MacIntyre and Gardner, 1991a). Additionally, anxious learners are divided between thinking about the language and worrying about their personal abilities and performance, a problem that worsens as task difficulty increases (Eysenck, 1979). This cognitive disruption can negatively affect a learner's language progress.

In addition to cognitive difficulties, anxious language learners also typically experience a discrepancy between proficiency and performance. Anxiety damages memory recall, rendering information incorrect, incomplete, or irretrievable (MacIntyre and Gardner, 1994a). It also causes learners to commit "careless" errors such as persistent spelling or grammar mistakes (Horwitz et al., 1986), and increases difficulties in communication by causing learners to hesitate or verbally stumble (Young, 1992). In the case of anxious students, these errors do not necessarily indicate the level of proficiency, but rather, they often characterize a gap between what the learners feel they know and what they are able to produce.

Even when production difficulties are not an issue, the negative affective experience associated with anxiety can be sufficient to interfere with language learning. For many anxious students, high grades or performance do not adequately compensate for the discomfort of the learning experience. Some researchers feel that the unpleasant nature of anxious learners' affective experiences explains why comparatively few language students continue on with language study after completing basic requirements (Phillips, 1991; Young, 1999). Learners' affective experiences influence their decisions; when these experiences are negative, as is often the case with anxious learners, the decisions are typically influenced accordingly.

The unpleasant emotional aspect of anxiety can help to negatively alter learners' cultural attitudes. Their affective experience with the target language colors their perceptions of the cultures and peoples associated with that language, and serves as the basis for their overall attitude toward them (Mantle-Bromley, 1995). Due to the negative affective learning experience, anxious students typically associate a feeling of dislike

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with the language that carries over into their cultural perceptions. In this manner, foreign language anxiety can foster the development of cultural misconceptions and misunderstanding.

The experience of foreign language anxiety, with its associated problems, is not limited to a particular type of language learner. It is easy to assume that this type of anxiety occurs solely, or at least principally, in learners who are generally "nervous." This is not the case, however, since people who tend toward nervousness suffer from trait anxiety, a type of anxiety that is distinct from and shows no significant correlation to foreign language anxiety (MacIntyre, 1999). It also appears that anxiety and task performance difficulties are cyclically related, signifying that either can cause the other (MacIntyre and Gardner, 1994b). These findings seem to indicate the possibility that foreign language anxiety can affect any learner at any time in the language learning experience.

The impact of foreign language anxiety on students' learning can be significant. It causes difficulties with learners' cognition, language production, affective experience, and cultural attitudes. Additionally, it is not confined to a specific personality type or to any particular phase of language learning. It has traditionally been perceived as a hindrance to language learning, and as current research increases our understanding of foreign language anxiety, it is becoming clearer just how significant a hindrance it really is.


Purpose of This Study

The purpose of this study is to examine the effects of metacognitive language

learning strategy use on foreign language anxiety. Many researchers, including Oxford, Crookall, Cohen, Lavine, Nyikos, and Sutter (1990), Oxford (1994), and MacIntyre (1994), have suggested examining the relationship between language learning strategies and affective factors, yet most of the research concerning language strategies seems to focus on proficiency. This researcher knows of no studies to date in which the effects of metacognitive strategy use on foreign language anxiety have been tested.

This study will focus on how use of these types of strategies can help to lower the anxiety levels of volunteer missionaries at the Missionary Training Center (MTC) in Provo, Utah. The specific metacognitive strategy that will be used in this study is a self-monitoring strategy called ASWE. It was developed by Dr. Neil Anderson of the Linguistics Department at Brigham Young University and consists of a series of questions that the missionaries ask themselves during a language activity. These questions are: What am I trying to accomplish? What strategy am I using? How well is it working? What else could I do? The principal focus of this study will be the question: "What is the effect of ASWE use on missionaries' language anxiety levels?" Other areas of interest to be addressed include the questions: "What effect does time spent in the MTC have on missionaries' anxiety levels?" and "What effect does the passage of time have on missionaries' levels of ASWE use?"

## Overview of Procedures

The participants in this study will be missionaries, young men and women typically ages 19 to 21, studying French as a foreign language at the MTC. The study will involve twelve districts or classes of native English speakers, each district consisting

of ten to twelve missionaries. Six of these districts will serve as a control group, whereas the other six will be an experimental group implementing a self-monitoring metacognitive strategy. Within each group, two districts will be in week two, two will be in week four, and two will be in week six of their MTC training.

At the beginning of the study, data will be gathered regarding the missionaries' initial levels of foreign language anxiety by means of a questionnaire, an MTC adaptation of Elaine Horwitz's FLCAS (Foreign Language Classroom Anxiety Survey). This questionnaire was developed specifically as a measure of foreign language anxiety. As part of the administration of the FLCAS, the twelve districts will answer questions designed to identify whether or not they already use the ASWE strategy.

The participants of the experimental group will then receive a general introduction to the concept of language learning strategies. Shortly thereafter, they will receive information and training on ASWE. They will implement this strategy into selected language learning tasks for the week following this instruction. At specific times during the strategy implementation, the missionaries will be asked to complete scales measuring their anxiety levels and the quality of their own strategy implementation. At the end of the week, the control and experimental groups will retake the MTC adaptation of the FLCAS and all data will be analyzed.

Assumptions and Limitations

One assumption of this study is that the strategy training will be sufficient to accomplish its purpose of helping participants to effectively implement strategy use in their learning. There is no consensus as to the best way to present learner strategy

training (Stanford, 1997) though researchers have identified some necessary criteria (Oxford, 1994). This allows for quite a bit of variance in training programs, as researchers must adapt to the structure of the specific setting in which they implement training. It is assumed, therefore, that the training design used in this study is adequate and appropriate for accomplishing its goals in the MTC setting

A second assumption of this study is that the allotted time frame is sufficient to allow for results to be obtained. Research generally suggests that a longer period of time is better than a shorter one for strategy implementation, since this is a key element in strategy training (Oxford et al., 1990). The language curriculum at the MTC is intensive in nature. Missionaries in the French area receive language instruction daily and are expected to use French all day, both in and outside of class. They have opportunity to implement a specific strategy into their activities several times daily, making it possible to obtain necessary data within a relatively short period of time. Given the condensed format of language instruction at the MTC, a week is considered to be sufficient for the purposes of this study.

Some of the limitations of this study include the fact that it involves the religious beliefs of volunteer missionaries. Missionaries studying languages at the MTC believe that they receive divine assistance in their learning, and that their responsibility to learn language is therefore of a religious nature. They also typically believe that their ability to receive this assistance is influenced by the degree to which they obey mission rules, a set of regulations--some of which are not overtly religious--that pertain to virtually every aspect of the missionaries' lifestyle. Missionaries have a tendency to consider language principally as a tool to help them teach about their religious beliefs, which contrasts with

the attitude typical of non-missionary learners that the language skill is valuable in and of itself. As a result, missionaries may show more resistance to strategy implementation, feeling that it is not really necessary, than would language learners in general. Additionally, non-missionary learners have no mission rules to follow. Thus, they are more likely to attribute their language achievement to efforts that directly pertain to language learning rather than to other factors. These aspects may affect the applicability of this study to language learners in a non-missionary environment.

A second limitation pertains to the probable differences in motivation resulting from variations in length of formal instruction that affect classroom dynamics. Missionaries study language in the MTC for only about eight weeks, whereas most language learners who receive formal instruction (though not all) do so for a longer period of time. This has an effect on classroom dynamics since those learners with longer classroom instruction tend to develop greater familiarity with the instructor's teaching style, than do those who study for a shorter period of time. Students who are more familiar with the teacher's style are more likely to lower their emotional defenses and to be willing to honestly assess their strengths and weaknesses as learners. Such an assessment would lead to a more accurate view of their own strengths and would likely influence their beliefs about their own ability to learn a language, in a positive way. This positive influence would likely translate into a greater willingness on the part of the learner to make efforts to learn, which would lead to increased motivation. The results of this study may not be as relevant for those learners who possess greater familiarity with their teacher's style than do the participants of this study.

In addition, as this study is focusing on young adults who are the ages of typical

university students, the results may be specific to that age group. Younger learners, particularly younger children, generally have more difficulty grasping abstract ideas such as language learning strategies, which would influence choices concerning structure and appropriateness of training methods. They also have a tendency to focus on the immediate and to have greater difficulty with understanding delayed results. On the other hand, adults may not see a need for strategy use in their learning, or they may feel satisfied with strategies that they already use. Older adults particularly tend to resist change, especially when they feel that they already know about their own language learning. The results of this study may therefore not be applicable as such to other age groups such as older adults, young children or adolescents.

Chapter 2

Review of the Literature

Introduction

To investigate the possibility of reducing language anxiety through the use of language strategies, it is necessary to have an understanding of language anxiety as a construct and of its effects on language learning. Language anxiety is not a transfer of general anxiety into the language context but is a debilitating form of anxiety unique to language learning. Language anxiety affects cognitive processing, affective elements of the learning experience itself such as the emotions learners experience during the learning process and their attitudes toward language learning, and language production.

Several models attempt to explain how language anxiety hinders cognitive processing. One such model identifies anxiety as one of several internal affective needs that cause learners to be more receptive to certain kinds of language input than to others. Another model incorporates the concept of an affective filter that prevents language input from entering the learner's mind. A third model organizes cognitive processing into three stages and suggests that language anxiety can impair processing at any of the stages by dividing cognitive resources between task-relevant and task-irrelevant thoughts.

Anxious learners often experience negative emotions during the learning experience because of their anxiety. This association of unpleasant experiences with language learning can consequently sour their attitudes toward the experience and can cause them to stop language study even when they are successful in their learning. Success in learning, however, can also be impaired by language anxiety. Anxious learners demonstrate greater difficulty in oral vocabulary production as well as in their

ability to interpret ambiguous language input. Additionally, language anxiety lowers learners' willingness to expend effort in their learning, which translates into lower achievement and even lower expenditure of energy.

It has been suggested that language learning strategy use could prove to be an effective means to reduce language anxiety. The language learning strategy research to date has not explored this possibility.

Historical Overview

The investigation of language anxiety, as such, began with attempts to define it as a construct. Formulating a definition has been a difficult task due to the complexity of the nature of the anxiety construct as well as to its apparently numerous effects on multiple aspects of the language learning process. Language anxiety research has followed two general approaches. Proponents of one approach, which can be labeled the transfer approach, view language anxiety as simply a transfer of anxiety from a given context to the language learning context. For example, the anxiety experienced by a learner during language class would not differ from that which this same learner experiences in English class because the anxiety stems from a general tendency to be anxious in a classroom setting; it would therefore not be specifically related to the foreign language context. If this approach is correct, then research on other types of anxiety is applicable to the anxiety experienced in language learning (MacIntyre, 1999). In the other approach, which can be called the separate construct approach, language anxiety is considered to be distinct from other forms of anxiety and unique to language learning. If this theory is correct, then research on other anxiety types will not be particularly useful

in resolving the difficulties that anxious language learners experience.

Scholars assumed the transfer approach was correct, but the studies based on this approach had confusing results. This confusion was pointed out by Scovel (1978) in his review of the anxiety research. The studies he mentioned included one in which anxiety correlated significantly with only one of several proficiency measures used; a second study in which anxiety correlated, not significantly, with only one of four proficiency measures used; and a third study which resulted simultaneously in a negative correlation for some participants and a positive one for others. In his commentary of Scovel's review, MacIntyre (1999) remarks that the "body of research reviewed by Scovel was consistent in assuming that anxiety from one domain could influence language learning. The results, however, did not support this assumption" (p. 27).


## Language Anxiety as a Distinct Construct

Following Scovel's review, researchers began looking at language anxiety as a unique and specific construct. Gardner (1985) hypothesized that "a construct of anxiety which is not general but is instead specific to the language acquisition context is related to second language achievement" (p. 34). Horwitz, Horwitz, and Cope (1986) drew parallels between a distinct foreign language anxiety construct and three other general anxieties (communication apprehension, test anxiety, fear of negative evaluation) but were careful to emphasize the distinctiveness of foreign language anxiety from other anxieties. According to Horwitz et al. (1986), "foreign language anxiety is not simply the combination of these fears transferred to foreign language learning . . . [but is] a distinct complex of self-perceptions, beliefs, feelings, and behaviors related to classroom

language learning arising from the uniqueness of the language learning process" (p. 128). According to MacIntyre and Gardner (1991b), " the literature on foreign language anxiety generally supports the tenets advanced by Horwitz et al. (1986), although most studies are not explicit tests of that theory" (p. 105).

One such study conducted by Horwitz (1986) supported the theory of foreign language anxiety as a unique construct, though that was not the explicit purpose of the study. Horwitz' intent was to establish the construct validity of the Foreign Language Classroom Anxiety Scale (FLCAS), a measure created by Horwitz et al. (1986) as a possible tool for measuring language anxiety. Establishing the validity of a tool intended to measure a given construct, however, is a strong indication of the validity of the construct itself. Showing the FLCAS to be a valid measure would support the validity of foreign language anxiety as a construct unique from other anxieties. Horwitz was able to establish the construct validity of the FLCAS by examining its correlation to a number of measures of other types of anxiety. Correlating the FLCAS with Spielberger's State-Trait Anxiety Inventory resulted in a relationship that was positive, but statistically very low ($r$=.29, $p$=.002, N=108). The correlation between McCrosky's Personal Report of Communication Apprehension and the FLCAS was also statistically low ($r$=.28, $p$=.063, N=44). This was also the case for the correlation between the FLCAS and Watson and Friend's Fear of Negative Evaluation Scale ($r$=.36, $p$=.007, N=56). Results of a correlation with Sarason's Test Anxiety Scale were somewhat higher than the other correlations, yet still showed only a moderate correlation ($r$= .53, $p$ = .001, N = 60). The data as a whole revealed no strong correlations, with the majority of them being statistically low. Horwitz concluded that this information showed, among other things,

that "foreign language anxiety [could] be discriminated from these related constructs" (p. 561).

Results from a subsequent study by MacIntyre and Gardner (1989) corroborated Horwitz' conclusion that foreign language anxiety was indeed a distinct construct. Part of this study examined the dimensionality of nine anxiety scales: math class, English class, French class, French use, trait, computer, test, state, audience sensitivity. Five of the anxiety scales--trait, computer, test, state, and mathematics class--were grouped into a factor characterized by the wide range and generic nature of the anxieties involved. This factor was labeled General Anxiety, and showed no reliable relationship to language learning. The remaining four scales--French use, French class, English class, and audience sensitivity--were grouped into a factor independent of the General Anxiety factor, labeled Communicative Anxiety. It was characterized by a "distinct foreign language component" (p. 268) and reflected the communicative aspects of language. This factor is similar conceptually to Horwitz et al.'s (1986) definition of foreign language anxiety in that it is related to the components similar to communication anxiety and social-evaluative anxiety. Further examination revealed that the French class and French use anxieties were the only scales within the Communicative Anxiety factor that correlated significantly with language proficiency. From these results, MacIntyre and Gardner concluded that foreign language anxiety is separable from general anxieties.

MacIntyre and Gardner (1991a) later sought to further clarify the relationship between language anxiety and other anxieties and found that there was a distinction between the two. In this study, they expanded the nine anxiety scales from the 1989 study to 23 anxiety measures, dividing them into three main anxiety factors: Social

Evaluation Anxiety, State Anxiety, and Language Anxiety (which included, among others, all four of the language related anxiety measures used in the study). Only the Language Anxiety factor significantly correlated with French performance, however, and did so on both a short-term memory repetition task and a vocabulary production measure. Furthermore, one of the non-language-oriented scales included in the Language Anxiety factor, "Anxiety in Routine Situations" or "Daily Routine Anxiety," showed an unexpected, negative, marginal loading onto the Language Anxiety factor. MacIntyre and Gardner interpreted this as an indication of a differentiation between Language Anxiety and other types of anxiety such as trait anxiety, which are common and would be encountered on a regular basis since people with this type of anxiety are of an anxious disposition. They concluded that the results of this study supported "the distinction between language anxiety and the more common forms of anxiety that are encountered in everyday life" (p. 528).

The body of current research seems to support the definition of foreign language anxiety as a construct distinct from other anxieties. Young remarks that "in general, the recent literature on foreign and second language anxiety upholds the theory of an anxiety particular to language learning" (Young, 1999, p. 427). MacIntyre gives the definition of language anxiety as "the worry and negative emotional reaction aroused when learning or using a second language" (Young, 1999, p. 27), and concurs that "it is now clear that when discussing the effects of anxiety on language learning, one must specifically consider the anxiety aroused in second language contexts" (Young, 1999, p. 28).

Having established the likelihood that foreign language anxiety is a specific construct, separate from other forms of anxiety, researchers have turned to investigating

its effects on language learning. Language anxiety's negative effects have been observed in three principal areas: cognitive processing, attitudes and affective experience, and language production. The review on anxiety that follows will present the studies being examined according to these three areas, beginning with language anxiety's effects on learners' cognitive processing, then examining its influence on their language learning experiences and personal attitudes, and then concluding with its impact on their second language production.

## Models of Cognitive Processing

Researchers had observed discrepancies between input and learner output that seemed to stem from affective, rather than cognitive, factors. They sought a better understanding of how cognitive processes worked in order to better identify how affective factors, especially anxiety, influenced those cognitive processes. Researchers had begun formulating models of cognitive processing and how affective factors influenced them before the majority of research focusing specifically on foreign language anxiety was carried out.

One theory of cognitive processing was proposed by Dulay and Burt (1977), who created a processing model that identified two general aspects of the relationship between second language input and cognition. They labeled one aspect "cognitive organizers" or the internal mechanisms used to process grammar. The other aspect was labeled "affective delimiters," which are internal affective motives or needs on the part of the learner that narrow the amount of input to be received into cognitive processing. Affective delimiters may narrow input, for example, by influencing learners to be more

receptive to some types of input over others (i.e., peers' language use over that of teachers due to a need to be accepted socially), or by affecting the way learners prioritize input to be learned. According to Dulay and Burt, because of these delimiters, less input is processed, thereby reducing language output.

Another model offering a possible explanation of how language input is processed is Krashen's Input Hypothesis (1980). In this hypothesis, Krashen offers an explanation of how affective factors influence language processing that bears some resemblance to Dulay and Burt's model. This hypothesis builds on Krashen's theory of a distinction between learning and acquisition. In his model, learning is a conscious process that focuses on formal language knowledge such as grammatical rules, whereas acquisition is a subconscious process that focuses on implicit language knowledge and that results in language competence. One tenet of the Input Hypothesis is that certain conditions must be met in order for acquisition to happen. One of these is that acquirers must be presented with what Krashen calls input at the $i+1$ level, or input containing structures that are slightly beyond acquirers' levels of competence, thus requiring them to use extralinguistic knowledge, such as context and background knowledge, in order to comprehend.

The second condition necessary for language acquisition requires that affective elements be conducive to the reception of the input. Krashen hypothesizes that within the acquirer's mind, there exists an "affective filter," or a type of internal barrier that is aroused by the presence of negative affective variables such as anxiety. It is the relative strength of this filter in an individual acquirer that determines the degree of language success. A weak or low filter is necessary, since a high filter prevents the $i+1$ input from

being processed. In explaining the importance of the role that affective factors play in Krashen's theory of second language acquisition, he states that " this is the equivalent of saying that comprehensible input [$i+1$] and the strength of the filter are the true causes of second language acquisition" (Krashen, 1981, p. 33).

From the standpoint of language anxiety research, the main drawback of the theories of Dulay and Burt and of Krashen is that they are somewhat vague. The Dulay and Burt theory incorporates rather broad terms (e.g., cognitive organizers) that need to be more specifically defined in order to allow for further research. Krashen's conception of the affective filter is also broad. He defines it as one of the " true causes of acquisition" and suggests that it is a primary source of differences in learners' varying levels of competence, yet he does not explain it in specific terms. It is not clear exactly how negative affective variables trigger the filter, or by what specific processes the filter impedes the entrance of input into the mind. This lack of specificity that characterizes these theories makes it difficult to test them further or to gather empirical data.

Some researchers have taken a different approach in attempting to further clarify exactly how it is that anxiety influences the language learning process. Around the same time that Dulay and Burt and Krashen presented their models, Eysenck (1979) supported the theory that anxiety's negative impact on cognition is due to what he called "the divided attention situation" (p. 364); in other words, anxious learners divide their cognitive resources between task-relevant thoughts (those involved in the actual language learning process) and task-irrelevant thoughts (worry and self-concern). The division of cognitive resources creates an internal competition between the two types of thoughts for processing space, causing interference to task-relevant cognition. Though the learner

usually tries to overcome this interference by expending extra cognitive effort, as the difficulty of the language tasks increases, he or she is increasingly less able to fully compensate for the division of resources. In spite of learners' best efforts, language anxiety impairs their learning by interfering with cognitive processes during language learning.

Tobias (1986) concurred with the divided-attention theory and suggested that cognitive processes could be broken down into three main stages-- input, processing, and output--and that interference from anxiety was possible at any of these three stages. The input stage refers to the point at which learners receive instruction, the processing stage involves all activities for the encoding, organizing, and storing of information, and the output stage refers to learner language performance. Anxiety's specific effects on cognitive processing depend on what stage is affected. When it occurs at the input stage, for example, it may make it more difficult for the learner to focus his or her attention, resulting in less input being taken in for initial processing. At the processing stage, anxiety may impede the assimilation of the information, increasing the difficulty of processing as task difficulty increases. At the output stage, anxiety can impair retrieval of information from memory. Thus anxiety's effects are not limited to only one phase of the learning process and can even influence multiple stages during a single learning task.

MacIntyre (1995) proposed a theory, compatible with that of Tobias, that attempted to describe the specific mechanism by which anxiety impairs cognitive processing. He suggested that the relationship between anxiety, cognition, and behavior is a cyclical one. According to his theory, a demand on learners for second language performance may cause them to become anxious. This anxiety leads to self-concerned,

task-irrelevant thoughts, which divides cognitive resources. As a result, cognitive performance is impaired, causing actual language performance to suffer. This poor performance results in negative thoughts about self, which uses up more cognitive resources and thus impairs language performance even more, establishing a vicious cycle. MacIntyre's theory is compatible with Tobias' theory of interference at any of three processing stages, in that it provides a possible explanation of the specific manner in which language anxiety disrupts the various stages.

Tobias' theory presents some definite strengths for anxiety researchers. One point in its favor is that it attributes different types of language learning difficulties to interference at specific stages. This provides a possible explanation for the diverse effects on language learning that researchers have observed and linked to anxiety. A second advantage of Tobias' theory from the research standpoint is that it presents a model that is specific enough to allow for further empirical examination. Researchers can try to identify the specific results of anxiety by examining it at specific points within the language learning process. The model that Tobias has suggested provides a viable direction for language anxiety research.

Cognitive Processing and Language Anxiety

In order to better understand the relationship between cognitive processing and language anxiety, researchers still needed to address several issues. Tobias had divided cognition into three stages and hypothesized that anxiety could interfere at any or all of them. It remained to be seen if language anxiety could be shown to occur at specific points of the language learning process, as Tobias suggested. Additionally, though

Tobias has theorized that anxiety's influence on cognition was negative, there existed the possibility that anxiety might actually positively affect cognitive processing. Yet a third issue to address was that of identifying the specific types of difficulties that were caused by anxieties at the different stages. Addressing these issues would help clarify the relationship between language anxiety and cognition.

In the same 1991 study mentioned earlier in this chapter (see p. 4), MacIntyre and Gardner were able to show that language anxiety can be identified at specific stage of the language learning process. They expanded the nine anxiety scales from the 1989 study to 23 anxiety measures, and administered a questionnaire with these 23 scales to the participants. Following this, the researchers administered two tests in both English and French: the Digit Span test (a short-term memory repetition task) and the Thing Category test (a vocabulary recall task). Between the tests, participants filled out state anxiety scales. Afterwards, they filled out anxometers (an anxiety measure that resembles a thermometer), one per test in each language.

Results showed that language anxiety's influence on participants' cognition was identifiable at the input and the output stages. The 23 anxieties loaded on three factors: Social Evaluation, State, and Language Anxiety. Of these three, only Language Anxiety was significantly associated with participants' French performance, and it correlated negatively with both the Digit Span and the Thing Category tests. MacIntyre and Gardner interpreted the correlation between Language Anxiety and the Digit Span test to mean that Language Anxiety appeared to have influenced participants' concentration and initial processing at the input stage. The correlation between Language Anxiety and the Thing Category scores was interpreted to mean that Language Anxiety influenced recall

from long-term memory at the output stage. These results indicate that foreign language anxiety can indeed be identified at specific points of the language learning process.

In a later study, MacIntyre and Gardner (1994a) found that not only could language anxiety be traced at specific learning stages, but that it impaired performance at each stage where it was present. In this study, they used a video camera to induce anxiety. They formed four groups of participants; one group served as a control and each of the remaining three represented one of the three learning stages (input, processing, output), according to the point in the study when the video camera was turned on. All the groups first looked over 19 English/French pairs of vocabulary words, which they were informed that they would need to use later in the study, and the video camera then recorded the input group during the remainder of the study. Participants were then shown the French nouns to be learned, paired with their English meanings and shown one at a time. Following this, participants were given four trials during which they typed in the French noun when shown the corresponding English noun. During this task, the video camera was used to record the processing group and was left on for the remainder of the study. Participants then performed three intervening tasks that were followed by a vocabulary recall task requiring them to respond orally, in French. During this recall task, the camera was used to record the output group and recorded them for the remainder of the study.

Results from the study indicated that the four groups began the study with similar levels of anxiety, but jumps in anxiety levels were observed for each experimental group as the camera was introduced. These jumps corresponded every time to performance deficits. At the input stage (the point at which the camera was introduced to the input

group), the data showed that the scores of the three groups who were not exposed to the camera were similar and were higher than the scores of the input group. At the processing stage, the scores of the processing group were lower than those of the input group, and both were lower than those of the control group (though the input group's scores were not significantly lower than the control group's). At the output stage, the output group's scores were significantly lower than those of the control group. The intervening tasks showed no significant performance differences between groups, but on the vocabulary recall task, every group showed elevated anxiety, showing that communicative tasks seem to be more anxiety-provoking; the control group, however, still showed lower anxiety levels and outperformed the other three groups on this task. MacIntyre and Gardner interpreted these results to mean that the lower scores of the three experimental groups on the recall task resulted from interference from language anxiety during cognitive processing and that anxiety does impair performance at the various stages of language learning. As shown by the results of this study, cognitive interference at any stage can negatively impact language performance.

These same researchers (MacIntyre and Gardner, 1994b) conducted another study in order to better identify the specific types of difficulties that language anxiety can cause at the various learning stages. The first phase of the study included an anxiety questionnaire and a multiple choice grammar test. The second phase consisted of nine tasks, three per learning stage, which were administered in random order. The three tasks for the input stage consisted of a word span test, a digit span test, and a t-scope test. The word span test consisted of a presentation of strings of familiar and unfamiliar French nouns that the participants were required to repeat as accurately as possible. Similarly,

the digit span test consisted of strings of digits that the participants were required to write down in order and from memory. The t-scope test consisted of examples of the numbers one through nine spelled out in either English or French, with the participants identifying which language was used. The processing tasks included the grammar test already mentioned, a paragraph translation task, and a paired associates task. The three output tasks included the Thing Category test, which is a vocabulary recall measure, a cloze test, and a self-description.

Results from eight of the nine tasks provided information on the nature of anxiety's interference at the different learning stages of input, processing, and output. Of the three input stage tasks, performance on the word span and the t-scope tests had significant negative correlations with anxiety whereas the digit span results were inconclusive. The results of the word span test seemed to indicate that anxious students have difficulty holding discrete verbal items in short-term memory. The results from the t-scope test showed that anxiety increases the amount of time needed to complete the task, but that when extra time is given, anxiety does not affect performance. Overall, results from these two tasks showed that interference from anxiety at the input stage allows less information into processing and increases the time necessary to complete initial processing.

Of the three processing tasks, results from each one indicated that anxiety correlated negatively with the processing of language information. On the paragraph translation task, accuracy was significantly impaired, apparently because anxious students were less willing to make guesses, something that was required by the task. The paired associates task consisted of two trials; on the first, anxiety increased the time

required to study for and answer the test questions whereas on the second, no correlation with anxiety was observed. These findings agreed with those of the t-scope test, showing that extra time was required for completion of the first trial, but that the extra time spent compensated for anxiety's effects during the second trial. In summary, anxiety at the processing stage increases the time required for processing and decreases learners' willingness to take risks.

The results of the output tasks also revealed significant negative correlations with anxiety. Results from the Thing Category test appeared to indicate that anxiety interferes with ability to retrieve second language items from memory. The cloze test correlation was similar, only stronger, indicating that anxiety interference increases with task difficulty, the cloze test being more difficult than the Thing Category test. The results from the self-description, which was administered in English and French, showed that anxiety limited the number of ideas expressed, limited the overlap of ideas between English and French, and lowered the fluency and complexity of the description. These findings seemed to show that anxiety disrupted memory search, slowed the speed of recall, and increased participants' reluctance to attempt difficult linguistic structures.

The findings of this study help to provide a clearer understanding of some of the specific ways in which language anxiety impairs cognition. Additionally, as MacIntyre and Gardner (1994b) surmised, these results show the importance of looking at more then just performance when investigating anxiety and that the effects of anxiety on language learning are both pervasive and subtle. These findings help underscore the importance of reducing the language anxiety that learners experience.

The research on cognitive processing and anxiety has provided some useful

information on the effects of anxiety on the language learning process. Studies have shown that it is possible to identify anxiety at specific points in the language learning process, that anxiety impairs cognition, and that it is possible and valuable to identify the specific processing stage at which anxiety interferes in order to better understand the sources and types of difficulties that language learners encounter. This understanding of the relation between anxiety and cognition can, in turn, lead to a greater understanding of the importance of reducing the amounts of foreign language anxiety that learners experience.

Anxiety and the Language Learning Experience

It has been noted that anxiety's negative effects go beyond the cognitive domain and that there are other aspects of language learning that anxiety can influence in a significant and negative manner; one of these aspects is the actual language learning experience itself. A common assumption is that anxiety's influence on affective elements of language learning diminishes when a learner is doing well. Contrary to this assumption, however, research shows that anxiety can render the language learning experience so unpleasant that learners often stop language study even when they are doing well. This occurs when language learning is such an unpleasant experience that learners' attitudes often become negative. These attitudes can lead students to stop language study altogether regardless of their achievement levels. Thus the effects of anxiety on the affective experience of learning a language can result in practical and far-reaching consequences.

Research reported by Scott (1986) on pleasantness in the testing experience bears

some relation to the issue of pleasantness in language learning. Scott examined ESL students' affective reactions to two different oral test formats, group and pair. As part of the study, the participants filled out a questionnaire about the test experience. Responses to the questions showed that emotional factors, such as students' perceptions of test fairness, how anxious the students feel, etc., have a significant influence on students' perceptions of pleasantness of the experience. Like several previous researchers (Savignon, 1972; Shohamy, 1980), Scott found that when students perceive a test as fair, they are also more likely to perceive it as pleasant, regardless of difficulty level or their own performance level.

Scott's findings deal specifically with testing situations, but these results can be related to anxiety in the language learning experience. In her interviews with highly anxious learners, Price (1991) found that a common complaint among her interviewees was that language class is commonly treated as though it were an evaluative situation. They felt that instructors often expect students to "perform" when responding to questions or participating in classroom activities such as role plays. Some of the specific phenomena that anxious learners experience in these situations have been reported by Horwitz, Horwitz, and Cope (1986). Many of these complaints relate to a frustrating sense on the part of the learners of not being in control of their own language learning. Common problems include feelings of apprehension, worry, and dread that are connected to language learning. Many learners experience abnormal degrees of difficulty in concentration as well as forgetfulness. Other common symptoms associated with anxiety include "freezing" in role plays or other situations requiring spontaneous speech, difficulties understanding the content of messages in the second language, and feelings of

frustration when compensation efforts, such as increased studying, fail to bring about improvements in these difficulties. When learners' efforts do not bring desired results because of anxiety, the learners tend to perceive the language learning experience as out of their control and unfair. These perceptions influence the learning experience by making it less agreeable, sometimes to an extreme degree, which in turn negatively influences student attitudes toward the experience of language learning.

Attitudes can play a significant role in language learning. They consist of three components: cognition, behavior, and affect (Mantle-Bromley, 1995), but affect is what is typically referred to when attitude is mentioned, and refers to "an evaluative, emotional reaction" or the "degree of like or dislike associated with the attitudinal object" (Mantle-Bromley, 1995, p. 373). The association of like or dislike with language learning is often influenced by the degree of pleasantness the learner experiences. When language anxiety lowers learners' enjoyment in learning, it also exerts a significant influence over their attitudes toward language learning and consequently, over some of the major language learning decisions that they make. Perceptions of pleasantness in language learning thus can exert a powerful influence over attitudes.

Anxiety's influence over learner attitudes has been documented in research. Lalonde and Gardner (1984) discovered significant, negative correlations between positive attitudes and anxiety. In this study, they investigated the relationship between a series of personality traits and motivation, attitudes, language aptitude, and second language achievement. Participants were divided into small groups and then performed a series of tests consisting of the Modern Language Achievement Test (MLAT), eight French proficiency measures, the Cando test (dealing with self-perceptions of language

aptitude), several measures of attitude and motivation, and several personality measures. The results showed that personality variables had no significant correlation with language aptitude or language achievement yet had many significant relationships with attitudes and motivation. Nine of the personality traits correlated significantly with integrativeness, which Lalonde and Gardner defined as a positive attitude toward the target language group. Of these nine traits, one that showed a strong positive correlation to integrativeness was self-esteem, and one that showed a strong negative correlation to integrativeness was conformity.

These two traits of self-esteem and conformity both relate significantly to anxiety. Self-esteem is defined here as self-assurance and confidence, which would logically indicate a lack of nervousness or a lack of anxiety. Clement (1977) even specifically identified the absence of anxiety as a principal characteristic of self-confidence (MacIntyre and Gardner, 1991b). A significant, positive correlation between self-esteem, or lack of anxiety, and favorable learner attitudes suggests that the presence of anxiety would correlate significantly and negatively with positive attitudes. This supposition seems to be borne out by the negative relationship between favorable attitudes and conformity. This latter trait is defined as susceptibility to social influence and peer pressure, and it is the opposite of self-esteem in that this susceptibility typically stems from low self-assurance, or the presence of uncertainty. Uncertainty or lack of confidence is a key element in the basic concept of anxiety. The negative relationship between conformity and positive attitudes seems to demonstrate that anxiety is related to less than favorable attitudes. These findings indicate a relationship between anxiety and negative attitudes.

This relationship takes on greater significance when considered in conjunction with further research that indicates that negative attitudes can greatly influence learners' decisions about language learning. The stated purpose of a study by Gardner, Lalonde, Moorcroft, and Evers (1987) was to examine rates of language attrition in 98 advanced students of French, yet their findings also revealed that attitudes greatly influence language learning decisions. The researchers administered a pre-test in June that consisted of a series of measures of French achievement, attitudes and motivation. The attitudinal measures dealt with students' attitudes toward French speakers and the French language, their degree of instrumentality and integrativeness, their interest in foreign languages, and their evaluations of the French courses in which they were enrolled and of their instructors. The September after the administration of the pre-test, the researchers administered a post-test that comprised the same achievement measures which were used in the pre-test and a measure to determine the amount of French that the participants used during the summer.

At the time of the administration of the post-test, the researchers found, unexpectedly, that 32 of the participants had stopped language study, so they investigated possible explanations. A re-examination of the pre-test results showed no significant differences on the language achievement measures between the continuing students and those who had dropped language study. There were significant differences between the two groups, however, on all of the attitude measures except one (evaluation of course instructor). Those who had dropped language study invariably had less positive attitudes than did the continuing students. The researchers also noted that although there were no significant differences between the two groups in the amount of French used during the

summer, post-test results revealed that the dropouts scored significantly lower on all but one of the achievement measures. Gardner et al. (1987) concluded that the decision to drop language study was tied to the attitudinal differences revealed by the pre-test scores. These findings seemed to indicate that negative attitudes can cause language learners to stop studying language, even when they are successful in terms of achievement.

More recent research has corroborated the conclusions drawn from the Lalonde and Gardner (1984) and the Gardner, Lalonde, Moorcroft, and Evers (1987) studies. A study by Phillips (1992) that investigated the influence of language anxiety on the learning experience revealed that anxiety can indeed generate negative attitudes by rendering the learning experience unpleasant. Phillips began by administering the Foreign Language Anxiety Scale (FLCAS) to university students enrolled in French. A few weeks later, she administered a two-part examination, the first half of which required students to converse on cultural topics from the course text and the second half presented them with a role play situation. Six students whose FLCAS scores classified them as highly anxious were then individually interviewed about their thoughts and feelings during the exam. These six students represented a range of academic ability, yet they unanimously considered the exam experience unpleasant, using words such as panicky, nervous, intimidated, confused, tense, and worried, to describe how they felt. The student of highest academic ability actually broke down during the exam, which had to be stopped for several minutes till she was able to continue. In the subsequent interview, this student explained that she had not been able to remember how to say things. She had not been able to stop thinking about this difficulty and her anxiety intensified until she broke down. Despite the fact that she was still able to perform well enough to receive a

90% on the test, she exhibited a negative attitude toward the exam.

Phillips concluded that foreign language anxiety is an issue for students regardless of academic ability and that its "most significant contribution . . . may well lie in its influence on the attitudes of students toward language learning and on their intentions to continue the study of a foreign language" (p. 22). She surmised that anxious students are not likely to continue language study past basic requirements and that they are not likely to have positive attitudes in the language courses that they do take because of the unpleasantness of the experience. Her findings show that anxiety can help to create negative attitudes and her conclusions support the results of the study carried out by Gardner, Lalonde, Moorcroft, and Evers (1987).

The studies reviewed in this section show how language anxiety's influence on affective aspects of language learning can ultimately affect learners' language study decisions. Language learning is a difficult and complex task by nature and interference from language anxiety can render the learning experience unpleasant. This unpleasantness can sour learners' attitudes toward language learning and these attitudes can cause learners to abandon language study, even when they are doing well. The stopping of language learning due to anxiety often leads to needlessly negative attitudes toward other cultures and languages, to cultural misunderstandings, and to intolerance. Thus language anxiety's negative influence can be significant and far-reaching in a practical way.

Anxiety and Language Production

In addition to influencing learners' cognitive processing and learning experiences,

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anxiety also can negatively impact learners' language production. It has been shown that anxiety can impair many aspects of language performance. Some of the more significant and important aspects include the quantity and quality of learners' language production, as well as the amount of effort that learners expend in their learning. Though anxiety is not the only cause of poor performance, its effects are significant and widespread enough to merit attention.

In order to better determine under what circumstances and in what ways anxiety affects second language oral performance, Gardner, Moorcroft, and MacIntyre (1987) administered a two-part test that focused on word production and free speech. Eleven anxiety measures, representing both general and specific types of anxieties, were employed to determine which types of anxiety affected performance and no time limits were imposed. Gardner et al. (1987) found that all of the significant correlations between anxiety and performance involved word production and measures of specific anxieties (French class, French Use, Audience Sensitivity, Novelty). High scores on these anxiety measures correlated with lower performance scores and showed that the anxious learners experienced greater difficulty than did the more confident learners in producing vocabulary words, and that fewer of the words anxious learners did produce were relevant to the assigned topic. According to these findings, anxiety can negatively affect language performance by limiting the quantity and topical relevance of learners' oral vocabulary output.

In addition to limiting the quantity of oral output, anxiety can also impair the quality of oral output. Steinberg and Horwitz (1986) tested the hypothesis that anxiety would interfere with more spontaneous second language communication by limiting

speakers' interpretiveness. They randomly placed high and low ability students into one of two groups: a high-anxiety group and a low-anxiety group. In the high-anxiety group, they induced anxiety through brusque and cool treatment of the participants and through conspicuous use of a video camera; the low-anxiety group was treated in a warm and personable manner and no video camera was present. All participants of both groups were asked to orally describe three ambiguous pictures by commenting on images depicted in the pictures, on events shown in the pictures, and on what they imagined to be happening in the pictures. Students in the anxiety group described the pictures much less interpretively than did those in the relaxed atmosphere. The study findings corroborated the hypothesis being tested, showed that anxiety can affect more than discrete-skills tasks, and indicated that students are less likely to attempt interpretive messages in a stressful environment. The researchers noted that since real communication requires that one talk not only about facts but also about interpretations of these facts, anxiety's effects on interpretiveness can significantly limit the quality and effectiveness of learners' second language communication.

In addition to limiting learners' vocabulary output and communicative interpretiveness, anxiety also can limit the amount of effort that learners are willing to expend in language learning, which also lowers performance levels. MacIntyre, Noels and Clement (1997) investigated how anxiety's impact on learner self-perceptions affects performance levels. Participants in this study completed a questionnaire that included items from an anxiety measure as well as items on learner self-perceptions. They then completed 25 proficiency tasks that covered the four basic skill areas (speaking, listening, reading, writing) and included a wide range of difficulty levels. MacIntyre et al. (1997)

found that the anxious students tended to underestimate their own actual levels of competence and to give inaccurate self-ratings. There was also a clear negative correlation between anxiety and the number of ideas expressed on all four task types (reading, writing, speaking, listening), as well as a consistent negative correlation between anxiety and quality of output.

The researchers found these results could be explained by previous research on self-perception by Fiske and Taylor that showed that anxious learners participate in self-derogation, or an underestimation of one's own ability for the purpose of preventing loss of self-esteem in case of failure. The researchers noted that according to Bandura's findings, however, perceptions of one's own competence typically determine the amount of effort expended to meet a particular goal and when these perceptions are low or negative, this leads to decreased effort. Based on these findings and on the results of their own study, MacIntyre et al. (1997) concluded that "some learners believe they cannot . . . perform in a second language, creating negative expectations which in turn lead to decreased effort and accomplishment" (p. 280).

These studies demonstrate that anxiety can have an impact on performance in a variety of ways. Gardner, Moorcroft, and MacIntyre (1987) demonstrated that anxiety limits second language word production both in terms of quantity and in terms of topical relevance. Steinberg and Horwitz' (1986) study supported the hypothesis that anxiety would reduce the interpretiveness of learners' oral communication. MacIntyre, Noels, and Clement (1997) suggested that anxiety causes learners to underestimate their own competence, which results in less energy being expended in language learning and in correspondingly poorer performance. Clearly, anxiety can have a significant impact on

language performance and reducing the amount of language anxiety that learners experience could have a significant and positive effect on their achievement.

The studies reviewed in this chapter so far have focused on anxiety and its effects on cognitive processing, affective elements of the learning experience, and language performance. It has been shown that anxiety can negatively influence all three of these areas, which underscores the importance of anxiety reduction. The purpose of this study is to investigate the effects of metacognitive strategy use on language anxiety in order to examine it as one possible means of helping learners to control their anxiety. The remainder of this chapter will present the research that has been done on language learning strategies.

Language Learning Strategies and Anxiety

The majority of research on language learning strategies has investigated them from the standpoint of their effects on improving language proficiency. Language learning strategies are commonly thought of as the actual behaviors that learners use to learn and to regulate their learning, behaviors used for the principal purpose of helping learners to assume greater responsibility for their own learning. More specifically, strategy use can help "learners become not only more efficient at learning and using their second language but also more capable of self-directing these endeavors" (Wenden, 1987, p. 8). Learners become more aware that they possess the ability to make their own language choices and to take action by finding solutions to the linguistic challenges they face. The eventual goal of strategy use is commonly understood to be the enabling of learners to develop greater ability to continue and to control their own learning.

At least one researcher, however, considers language learning strategies to be useful in the affective domain of language learning. Phillips (1991) suggests that the role of metacognitive strategies, or those strategies used to organize, monitor, and evaluate learning, can be expanded into the affective domain as well. She argues that these strategies "can be applied to controlling classroom anxiety much in the way that they are used in developing effective reading or listening comprehension skills" (p. 5). This shift in focus from proficiency to anxiety in metacognitive strategy use could provide a highly effective means for reducing the negative influence of language anxiety.

It is necessary to know first, however, if this type of strategy can be successfully taught to learners. O' Malley et al. (1985) demonstrated that it is possible to teach learners to use metacognitive strategies, in a study whose purpose was to determine if metacognitive, cognitive, and socio-affective strategies could be taught in a classroom environment with integrative tasks. The researchers divided 75 ESL students into a control group, a group that received training in all three of the strategy types being investigated, and a group that received training in cognitive and socio-affective strategies only. The training extended over an 8-day period with 50 minutes of training and practice per day on listening and speaking tasks. For the listening tasks, which consisted of four short videos followed by a lecture and a comprehension test, the group with metacognitive strategy training used selective attention to listen for linguistic markers indicating the various sections of a presentation. For the speaking tasks, which consisted of four oral presentations, this same group used functional planning to assess the requirements of a task and to ascertain if they had the skills necessary to carry out the task. As part of this strategy, students were to produce English expressions and functions

that could be used in the different parts of an oral report. To verify that the students were using the strategies, teachers observed the students during the strategy implementation and the latter handed in notes and worksheets. Results showed that the students used both the selective listening and the functional planning strategies. O' Malley et al. (1985) concluded that the training "was successfully demonstrated in a natural teaching environment with second language listening and speaking tasks" (p. 577).

This study, as well as the majority of studies investigating metacognitive strategies, focused on the relation of this strategy type and performance. To date, this researcher knows of no studies that have investigated the effects off use of metacognitive strategies on anxiety levels. Though several researchers have suggested using affective strategies as a means of lowering anxiety, no researcher seems to have explored metacognitive strategies in this light. This is a question that the present study will attempt to address by examining the effects of use of a metacognitive strategy on the language anxiety levels of missionary language learners.

## Summary

Research on anxiety has followed two general approaches to language anxiety. One approach has been to view it as a transfer from another context, such as mathematics class. It was originally assumed that this approach was the case, but the data was confusing and inconclusive. The other approach has been to view anxiety as a construct distinct to the language learning environment. Research supports this latter definition and has shown that foreign language anxiety can be discriminated from other anxiety constructs. It is now generally accepted that language anxiety is indeed distinct from

other anxieties.

Language anxiety has been observed to negatively affect language learning in three principal areas: cognitive processing, affective elements of the learning process, and performance. One theory of cognitive processing divides cognition into three main components--input, processing, and output--and it has been shown that anxiety can negatively and significantly affect each of these three areas, resulting in cumulative difficulties at the output stage. Language anxiety also negatively influences affective elements of language learning such as learner attitudes or the actual language learning experience itself. Anxiety can create negative attitudes by rendering the learning experience unpleasant and these negative attitudes can in turn cause learners to maintain negative perceptions about the target language and its peoples, and in some cases, stop language study.

Language anxiety can also negatively influence language performance by producing communication difficulties. These difficulties are manifest in decreased quantity and quality of language output, as well as in reduced amount of effort that learners are willing to invest in their learning. Thus, anxiety's negative impact can be felt in a variety of ways.

There have been many techniques suggested as possible means of reducing language anxiety. One of these is the use of metacognitive language learning strategies. The research on learning strategies has focused on proficiency, but it has been suggested that metacognitive language strategies might prove to be an effective means of reducing the language anxiety experienced by many language learners. To date, however, no studies have followed that suggestion. This study is intended to help to fill that need.

Chapter 3

Research Design

Overview

The purpose of this study was to examine the effects of a self-monitoring metacognitive strategy on the foreign language anxiety levels of missionaries at the Missionary Training Center (MTC). The strategy used in the study was developed by Dr. Neil Anderson of Brigham Young University and is called ASWE. It consists of four introspective questions that learners ask themselves about their own strategy use (see Appendix A). This study measured missionaries' anxiety levels as they used ASWE during a number of language tasks over the course of a week. Other areas of interest in this study included the effects of time spent in the MTC on missionaries' anxiety levels and the relationship between the degree of ASWE use and passage of time.

Participants

The participants in this study were young adults who were full-time missionaries studying at the MTC in Provo, Utah. The missionaries were largely between the ages of 19 and 21 and included both men and women participating in an intensive language program that lasts approximately nine hours a day, five days a week, for a period of eight weeks. The missionaries were grouped into classes called districts that included between seven to 12 missionaries per district. Three teachers were assigned to each district, one teacher for each of the morning, afternoon, and evening shifts, all of whom were college students with little formal pedagogical training or background.

The research design of this study was quasi-experimental and involved a control

and an experimental group. Since the missionaries were already organized into districts, they were randomly assigned by district to either the control or the experimental group, so that each group comprised six districts. Both the control and the experimental groups included two districts in their second week of training in the MTC, two in the fourth week and two in the sixth week. The experimental group included 64 missionaries and the control group included 62 missionaries, making a total of 126 participants in the study. Participants of both groups were of varying language ability and had varying degrees of background exposure to the target language or to other languages.

## Procedures

### *Treatment for All Participants*

All participants in the study took a pre-test in order to determine their initial levels of language anxiety. The pre-test included several questions about their language learning strategy use for the purpose of determining if any missionaries were already using the ASWE strategy. A week after they took the pre-test, all participants took a post-test to determine their final levels of anxiety. The post-test included the same statements that were on the pre-test but the statements were randomly assigned to a different order. The post-test did not include any questions about ASWE.

### *Control Group Treatment*

The control group missionaries filled out both the pre-test and the post-test. They were given no information about the study beyond being told that it was for MTC research purposes. Though they had received the *How to be a Better Language Learner*

document, it was not mentioned to them at all in connection with this study and no information was given to them concerning any of the experimental districts.

*Experimental Group Treatment*

The experimental group missionaries filled out the pre-test but they also received two lessons, one that introduced language strategies as a general concept and one that introduced the ASWE strategy specifically. The second lesson included time for the missionaries to practice using ASWE before actually implementing it.

They implemented the ASWE strategy in their classrooms under teacher supervision. ASWE was used during language tasks, language expansions, and some discussion learning activities. Language tasks are activities in which the missionaries learn vocabulary and phrases in order to be able to accomplish a given task in the language, such as pray or make a contact. Expansions are activities in which the missionaries begin to personalize a task by adding new words and phrases to fit their individual personalities and specific circumstances. The discussion learning activities that were used in the study are those in which the missionaries learn the words and phrases that are used in a given discussion. These three types of activities were chosen because of their similarity in nature and purpose.

Before starting a language activity, the missionaries chose a strategy from the *How to be a Better Language Learner* document, or the list of strategies they received when they entered the MTC. They then began the language task, using their chosen strategy as they did so. At some point about ten minutes into the activity, the teacher stopped the missionaries and had them implement the ASWE strategy. Following this,

the missionaries filled out two thermometers, one indicating their level of anxiety and the other indicating how well they felt that they were applying the ASWE strategy. Afterwards, they continued with and finished the language activity. They followed this same procedure for a total of six language learning tasks. After completing the sixth task, they filled out the post-test questionnaire.

## Materials and Instruments

### Pre-test

All participants in the control and the experimental groups took the same pre-test which was an MTC adaptation of the Foreign Language Anxiety Scale (FLCAS) developed by Horwitz, Horwitz, and Cope (1986) (Appendix B). This document is a single-sided, two-page anxiety measure containing 30 items. A little over half of the items are statements that focus directly on anxiety, such as, "It embarrasses me to volunteer answers in the language." The remaining items focus directly on confidence levels, such as, "I feel confident speaking in my mission language." The missionaries were asked to rate how strongly they agreed or disagreed with the items by using a five-point Likert scale containing the following items: Strongly Agree, Agree, Uncertain, Disagree, and Strongly Disagree.

The researcher added four questions to the pre-test in order to determine if any of the participants were using the ASWE strategy prior to the study. These questions were modeled on the four questions that make up the ASWE strategy, and they included items such as, "In the middle of a language task or activity, do you ever stop to examine any tricks or gimmicks you might be using to see if they are helping you to your

satisfaction?" Participants responded with "yes" or "no" and were given the opportunity to explain their responses. The four ASWE questions are parts of a whole so to use the strategy, all four questions must be addressed. In order to determine if any missionaries were using ASWE, therefore, the researcher was specifically looking for any participants who responded "yes" to all four of the pre-test questions. No participant responded affirmatively to all four questions, so it was assumed that no participant was already using ASWE.

*Post-test*

The same scale that was used as the pre-test was also used as the post-test for all the participants. The format was modified for the post-test in that the 30 items were assigned at random to a different order (Appendix C).

*Lesson Plans*

The researcher used two lesson plans to introduce the concept of language learning strategies and the ASWE strategy. The first lesson (Appendix D) was presented during the first class period following the pre-test. This lesson was adapted from the MTC's *Language Learning Strategies for Missionaries: Classroom Training Material* booklet, which was developed by the MTC Research and Evaluation Department for a previous study. The lesson was entitled "Introduction of Language Learning Strategy Training," and its purpose was to introduce and explain the concept of language learning strategies. It addressed common misconceptions about language learning, included a discussion of the importance of using the right tools to accomplish a task, pointed out that

people learn differently, and included an examination of the *How to be a Better Language Learner* strategy list.

The second lesson discussed the ASWE strategy. It introduced the general concept of metacognitive language strategies and focused specifically on ASWE (Appendix E). Following the explanation, the missionaries were given two practice opportunities using the language tasks "Prayer" and "Becoming Acquainted." This was also an opportunity for them to ask any further questions they may have had.

*ASWE Strategy*

ASWE is a self-evaluative, metacognitive strategy developed by Dr. Neil Anderson of the Brigham Young University Linguistics Department. It is used in conjunction with other language strategies and consists of four questions: What am I trying to **A**ccomplish? What **S**trategy am I using? How well is it **W**orking? and What **E**lse could I do? Users of this strategy implement it by stopping in the middle of a given learning activity to ask themselves these questions, and by changing any unsatisfactory strategies being used. In this study, the missionaries were stopped by their teachers during in-class language learning activities in order to ask themselves the ASWE questions.

*The How to be a Better Language Learner Document*

When missionaries enter the MTC, they receive a supply packet that includes a document entitled *How to be a Better Language Learner* (Appendix F). This document is a list of language strategies that has been compiled for the missionaries' use. It reflects

the work of language strategy researchers such as Rebecca Oxford, Rubin and Thompson, and Mary Lee Scott. The document also includes contributions from the MTC Research and Evaluation Department as well as input from the BYU/MTC Language Advisory Committee that includes language training directors from the MTC and language professors from Brigham Young University.

The document divides the strategies according to their focus into ten sections that are as follows:

1. Maximizing Your Language Study

2. Learning Language Tasks

3. Speaking

4. Listening

5. Reading

6. Writing

7. Learning Grammar

8. Learning Vocabulary

9. Learning Missionary Discussions

10. Spiritual and Mental Preparation

Throughout the missionaries' stay at the MTC, this document serves as a resource for them to help them make their language learning more effective. They can choose on an individual level from any of the listed strategies according to their personal needs.

The ten sections of the document organize the strategies into categories that each address a particular aspect of language learning. The section "Maximizing Your Language Study" includes metacognitive strategies to help missionaries to effectively

organize and use their study time (e.g., "Make goals for language learning [both long-term and short-term goals].") The "Learning Language Tasks" section breaks up MTC language tasks into smaller segments to focus on (e.g., "Identify and learn vocabulary and phrases that can be used to accomplish the task.").

The next four sections focus on strategies that help missionaries improve in the four language skill areas. These four sections are "Speaking," "Listening," "Reading," and "Writing" and each of the four includes strategies that focus specifically on that section's particular skill (e.g., " If you don't understand what someone says, ask them to repeat it or to slow down," or "Write everyday things in the language [e.g., letters, talks, notes from meetings, journal entries].").

The next two sections are entitled "Learning Grammar" and "Learning Vocabulary " and are designed to strengthen missionaries' knowledge of the structure of the language. They include strategies such as, " Look for basic patterns in the language," and "Whenever possible, learn vocabulary in context."

The section "Learning Missionary Discussions" contains strategies that are intended to help missionaries better understand and teach the missionary discussions (e.g., "Learn an outline of a discussion in sequence [discussion titles, principle titles, and paragraph headings]."). The final section, "Spiritual and Mental Preparation," contains strategies that help the missionaries to better prepare spiritually and mentally for language learning (e.g., "Try to think in the language.")


*Anxometers and ASWEmeters*

While the missionaries of the experimental group were implementing ASWE in

their language tasks, their levels of anxiety and of ASWE use were measured by means of thermometers (Appendix G). At some point during each activity, the teacher stopped the class and distributed to each missionary a sheet of paper that contained two photocopied drawings of thermometers. Each thermometer included a scale that numbered from zero to ten.

The two thermometers on the sheet had different purposes. The first thermometer measured the missionaries' anxiety levels and was called an anxometer. It was accompanied by the question, " How anxious are you?" and by a brief explanation of what was meant by "anxious." Higher levels of anxiety corresponded to higher numbers on the anxometer's scale. The second thermometer measured the degree to which the missionaries were sincerely trying to implement the ASWE strategy and was labeled an ASWEmeter. It also was accompanied by a question that asked, "How well do you feel that you are implementing ASWE?" and also included a brief explanation of what was meant by the question (i.e., sincere efforts to implement ASWE). Again, the higher numbers on the ASWEmeter's scale corresponded to a greater effort to implement ASWE. The purpose of the ASWEmeters was to make sure that the participants were actually using the strategy. There were six anxometers and six ASWEmeters for each of the 64 members of the experimental group.

Data Collection

The control and experimental groups contained two districts in the second week of MTC training, two in the fourth week, and two in the sixth week. Teachers whose districts were involved in the study, whether as control or experimental, received

their language tasks, their levels of anxiety and of ASWE use were measured by means of thermometers (Appendix G). At some point during each activity, the teacher stopped the class and distributed to each missionary a sheet of paper that contained two photocopied drawings of thermometers. Each thermometer included a scale that numbered from zero to ten.

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Data Collection

The control and experimental groups contained two districts in the second week of MTC training, two in the fourth week, and two in the sixth week. Teachers whose districts were involved in the study, whether as control or experimental, received

strategy. The second lesson was taught the following day and focused specifically on the ASWE strategy. It included an explanation of ASWE as well as the opportunity to practice it.

ASWE implementation began the same day as lesson two, in the class period immediately following the lesson. The missionaries then used the ASWE strategy during their in-class language learning activities for that week. The number of tasks involving ASWE came to a total of six per missionary. Upon the completion of the six language activities, the post-test was administered on Monday of the following week. All participants of both the control and the experimental groups filled out the same post-test.

Variables

This study involved several variables. The experimental or independent variable in this research design was the implementation of the ASWE strategy, as measured by the ASWEmeters, and the dependent variable was the missionaries' levels of anxiety, as measured by the pre-test, post-test, and anxometers.

The missionaries were already divided into districts previous to the start of the data collection. This affected the way the control and experimental groups were organized. Dividing the members of a single district so that some belonged to the control group and others belonged to the experimental group would most likely have allowed the attitudes and comments of the two groups to influence each other. To prevent this influence, districts were randomly assigned as single units to either the control or the experimental group.

The missionaries' class time is divided into three shifts. To control for effects due

to differences in the time of day, both the pre-test and the post-test were administered to all of the twelve districts during the morning shift. Controlling for the different shift times helped to increase the reliability of the missionaries' pre-test and post-test responses.

Teacher-related effects were also taken into consideration. To reduce any significant, teacher-related effects, a large number of teachers was used. At least two different teachers per district administered ASWE during a task, and during the course of the study, several of those teachers were actually substitutes.

Yet another variable involved in this study concerned test recall. Due to the fact that the pre-test and the post-test contained the same questions, there was the possibility that the missionaries might simply remember and duplicate the order of their pre-test responses onto the post-test. The items from the pre-test were randomly assigned to a different order for the post-test to reduce the likelihood that the missionaries would simply repeat the order of their pre-test answers.

## Data Analysis

The principal purpose of this study was to respond to the question, "What is the effect of ASWE use on missionaries' anxiety levels?" Other areas of interest included the questions, "What effect does time spent in the MTC have on missionaries' anxiety levels?" and "What effect does the passage of time have on missionaries' levels of ASWE use?"

Responding to the first question involved two methods of data analysis. The total means of the pre-test and post-test scores of the control group and those of the

experimental group were calculated and the differences between them were compared. An Analysis of Variance (ANOVA) was then performed in order to determine the relationship between the treatment and changes in language anxiety levels. Secondly, for each task, the mean scores of each thermometer type were calculated and the changes in those means across tasks were compared. The scores of the ASWEmeters and the anxometers of each of the tasks were correlated using the Pearson Product-Moment correlation coefficient in order to determine the relationship between ASWE use and language anxiety for each task. The frequency of scores for each thermometer on each task was calculated in order to show the specific differences between the thermometer scores.

Analysis of the data for the second question compared the control group's pre-test mean scores with their post-test mean scores in order to determine the changes in anxiety according to week. An ANOVA was performed for the pre-test and for the post-test in order to ascertain if there was a significant relationship between effect of week of training and changes in language anxiety.

To determine the effect of time on ASWE use, the differences of means were calculated to examine any changes in ASWE use over the course of the six tasks. The mean changes between tasks were examined to ascertain the effects of time from task to task, and then the overall change in ASWE use from the first to last task was examined.

Chapter 4

Results and Analyses

For this study, data was collected from 12 districts of missionaries at the

Missionary Training Center who were divided into an experimental and a control group.

Both the control and the experimental groups consisted of six districts, two of which were

in week two of their MTC training, two in week four, and two in week six. The control

group included 62 missionaries and the experimental group included 64 missionaries.

The principal purpose of this study was to ascertain the effect of an anxiety reduction

strategy, ASWE (see Appendix A), on missionaries' foreign language anxiety levels. In

addition, this study also examined the effect that week in the MTC had on language

anxiety, and whether ASWE use changed over time.


Characteristics of Participants

Table 1 shows the number of missionaries in the experimental and control groups

and classifies them according to week in the MTC. As can be seen from the table, a total

of 126 missionaries participated in the study.


Table 1

Participants according to group and week in the MTC

| Number of Missionaries | Number of Districts | Control or Experimental | Week of MTC Stay |
|---|---|---|---|
| 21 | 2 | Control | 2 |
| 21 | 2 | Experimental | 2 |
| 24 | 2 | Control | 4 |
| 23 | 2 | Experimental | 4 |
| 17 | 2 | Control | 6 |
| 20 | 2 | Experimental | 6 |
| **Number of Missionaries:** Control = 62 Experimental = 64 | | | |

Effects of ASWE Use on Anxiety Levels

In order to determine the effect of ASWE use on missionaries' foreign language anxiety levels, information about the missionaries' language anxiety levels was collected from the pre-tests and post-tests of both the experimental and the control groups. Table 2 presents the pre-test and post-test mean scores for both the control and the experimental groups as well as associated $p$-values. The $p$-value indicates the probability of a given result occurring by chance by establishing a standard for gauging the statistical significance of that result. The statistical standard used in this study is $p<.05$, which indicates that when this standard is met, the probability of the results occurring by chance is less than five per cent.

Table 2

Pre-test and post-test mean scores for each group (N=113)

| Group | Number of Participants | Pre-test | Post-test | Difference | $p$-value |
|---|---|---|---|---|---|
| Experimental | 56 | 74.17 | 69.52 | 4.65 | .0001 |
| Control | 57 | 74.40 | 73.00 | 1.40 | 16.29 |

Table 2 shows that the language anxiety levels of the two groups were similar at the time of the administration of the pre-test and that both groups' anxiety levels decreased between the administration of the pre-test and that of the post-test. The experimental group's anxiety levels decreased by a little more than 4.5 points whereas the control group's anxiety decreased by nearly a point and a half. It is clear that the decrease in the anxiety of the experimental group most likely did not occur by chance whereas the control group's drop in anxiety may have.

In order to determine if the use of ASWE had any relation to the drop in anxiety in the experimental group, an Analysis of Variance (ANOVA) was performed. The results of this analysis are presented in Table 3.

Table 3

ANOVA for the effects of treatment on language anxiety

| Source | df | Sum of Squares | Mean Square | F | p value |
|--------|-----|----------------|-------------|------|---------|
| treatment | 1 | 293.04 | 293.04 | 5.17 | .0249 |

The purpose of an ANOVA is to analyze variables that could affect the outcomes of a given study and to identify which of those variables had a statistically significant effect on the study results. According to the results of this ANOVA, ASWE use had a significant effect on the experimental group's language anxiety. This is shown by the fact that the $p$-value meets the .05 standard of statistical significance.

A second method that was used to further analyze ASWE's effect on language anxiety involved the language task thermometers. During each of the six tasks, the missionaries completed two scales in the form of thermometers. Possible scores for both thermometers ranged from 0 to 10, but the thermometers measured different aspects of the learning of the task. The ASWEmeter was designed to measure the degree to which the missionaries used ASWE whereas the anxometer measured their language anxiety levels.

To ascertain if increases in ASWE use corresponded to decreases in anxiety levels, the mean scores of the two thermometer types were calculated for each of the six tasks. For each thermometer type, the change in mean between each task was calculated,

and then for each task, these changes were compared. The changes in the mean scores

for each type of thermometer are reported in Table 4.

Table 4

Changes in thermometer mean scores across task   (N=60)

| Task Pair | ASWEmeter mean change | Anxometer mean change |
|-----------|----------------------|----------------------|
| 1 to 2 | .26 | -1.26 |
| 2 to 3 | .48 | -.29 |
| 3 to 4 | -.35 | .26 |
| 4 to 5 | .09 | -.30 |
| 5 to 6 | .08 | .24 |
| 1 to 6 | .56 | -1.35 |

In this table, the increases in ASWE use or in anxiety levels are indicated by the

numbers with positive signs. Decreases in ASWE use or in anxiety levels are indicated

by the numbers with negative signs. For every task pair except for the "5 to 6" pair, the

numbers with negative signs in one column correspond to numbers with positive signs in

the other, indicating that ASWE use and anxiety levels moved in opposite directions.

This general trend is revealed in the "1 to 6" pair, which indicates the overall direction of

the changes in ASWE use and anxiety levels. Figure 1 illustrates the direction of the

changes.

Figure 1.

ASWEmeter and anxometer means
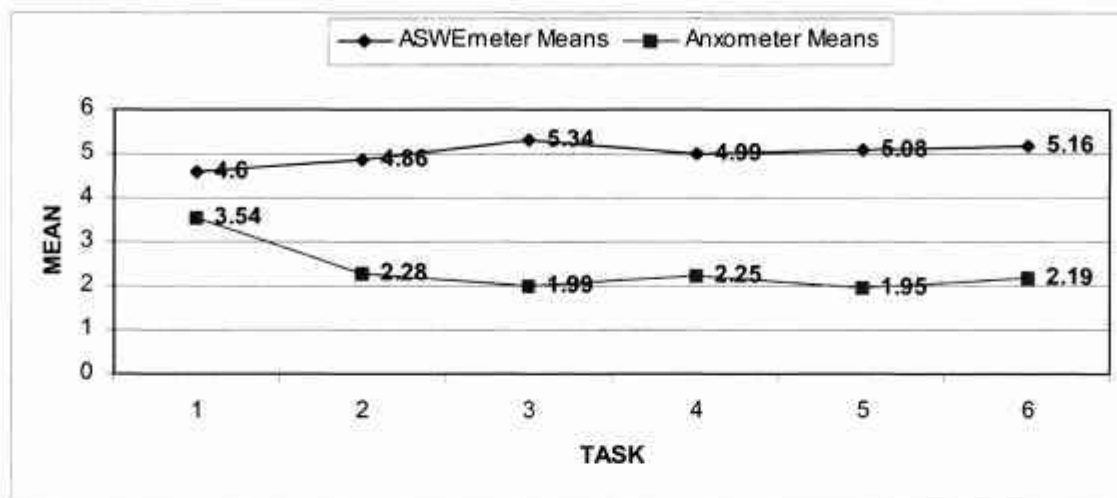


In addition to the comparison of the changes in the mean scores across tasks, the

data analysis also included calculations between the ASWEmeters and anxometers of

each task using the Pearson Product-Moment correlation coefficient. The purpose of

these calculations was to determine if there was a statistically significant relationship

between the thermometer scores of a single task. Table 5 shows the correlations.

Table 5

Correlation between ASWEmeter and anxometer scores

| Language task | Correlation of scores | $p$-value |
|:---:|:---:|:---:|
| 1 | .156 | .2262 |
| 2 | -.107 | .4078 |
| 3 | .030 | .8149 |
| 4 | .092 | .4701 |
| 5 | -.217 | .0857 |
| 6 | -.055 | .6640 |

Given the *p*-values reported in the table, none of the correlations between the thermometers of a single task was statistically significant, though the correlation for the fifth task approaches statistical significance at $p<.10$. These results indicate the absence of a pattern between the degree of ASWE use and the level of language anxiety. Table 6 gives the frequency of scores for both the ASWEmeters and the anxometers of the six tasks and presents the specific differences between the thermometer scores for each task.

A comparison of the thermometer scores presented in Table 6 reveals that the more frequently chosen scores on the ASWEmeters cluster around the middle of the scoring scale and are found principally on the third through fifth tasks. The more frequently chosen scores on the anxometers cluster around the lower numbers of the scoring scale and are distributed fairly evenly across the six tasks.

Table 6

Frequency distribution of mean scores   (N=60, k=10)

| Score | Frequency of ASWEmeter scores | | | | | | Frequency of Anxometer scores | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |
| 0 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 1 |
| 1 | 7 | 5 | 7 | 6 | 7 | 5 | 15 | 16 | 22 | 22 | 28 | 20 |
| 2 | 7 | 8 | 3 | 4 | 4 | 3 | 11 | 26 | 21 | 16 | 12 | 16 |
| 3 | 6 | 9 | 1 | 5 | 3 | 7 | 9 | 8 | 10 | 10 | 10 | 14 |
| 4 | 9 | 5 | 7 | 11 | 11 | 9 | 5 | 2 | 4 | 8 | 7 | 4 |
| 5 | 9 | 7 | 11 | 10 | 8 | 8 | 5 | 6 | 1 | 2 | 2 | 4 |
| 6 | 4 | 7 | 10 | 5 | 7 | 11 | 6 | 1 | 0 | 1 | 0 | 0 |
| 7 | 8 | 3 | 11 | 9 | 5 | 5 | 5 | 1 | 0 | 1 | 0 | 1 |
| 8 | 3 | 8 | 5 | 5 | 6 | 6 | 1 | 0 | 1 | 0 | 0 | 0 |
| 9 | 4 | 4 | 2 | 3 | 4 | 4 | 2 | 0 | 0 | 0 | 0 | 0 |
| 10 | 2 | 3 | 3 | 2 | 4 | 2 | 1 | 0 | 0 | 0 | 0 | 0 |

## Week of MTC Training and Language Anxiety

The second question addressed by this study looked at the effects of week of MTC training on missionaries' language anxiety levels. Analysis of the data included comparisons of the mean scores of the control group's pre-tests with the mean scores of their post-tests. An ANOVA was also performed for the effect of week of training on the pre-test and post-test anxiety levels of the missionaries. Table 7 presents the mean scores of the control group's pre-tests and post-tests.

Table 7

Mean scores of the pre- and post- anxiety measures of the control group according to week (N = 57)

| Week in the MTC | Participants | Pre-test scores | Post-test scores | Difference |
|---|---|---|---|---|
| 2 | 19 | 72.70 | 69.05 | 3.65 |
| 4 | 23 | 77.67 | 74.43 | 3.24 |
| 6 | 15 | 74.13 | 73.67 | .46 |
| **Total mean scores** | | 74.40 | 73.00 | 1.4 |

For each week there was a decrease in anxiety levels between the pre-test and the post-test. In addition, Table 7 indicates that across weeks, anxiety levels rose and then fell again. To ascertain if the increase and decrease in anxiety were statistically significant, an ANOVA was performed that analyzed the effect of week on both the pre-test and the post-test scores. Table 8 shows the results of the ANOVA for the pre- and post-tests.

Table 8

ANOVA for effect of week on pre- and post- anxiety levels    (N=57)

|  | Source | df | Sum of Squares | Mean Square | F | p-value |
|---|---|---|---|---|---|---|
| **pre** | week | 2 | 149.70 | 74.85 | .24 | .7880 |
| **post** | week | 2 | 155.90 | 77.95 | .24 | .7857 |

According to the ANOVA, the week of MTC training does not have a statistically significant effect on language anxiety levels. The *p*-values for both the pre-test and the post-test do not meet the .05 standard of statistical significance. This indicates that the increase and decrease of language anxiety across weeks is an element of chance and is due to factors other than week of MTC training.

## Effects of Time on ASWE Use

The third question addressed by this study concerned the effect of time on the degree of ASWE use. This question included an examination of the change in ASWE use between each of the six tasks as well as an examination of the difference in means between the first and last tasks to determine the overall change in ASWE use. Figure 2 illustrates the changes in means between each of the six tasks.

<u>Figure 2.</u>

ASWEmeter mean changes between each task
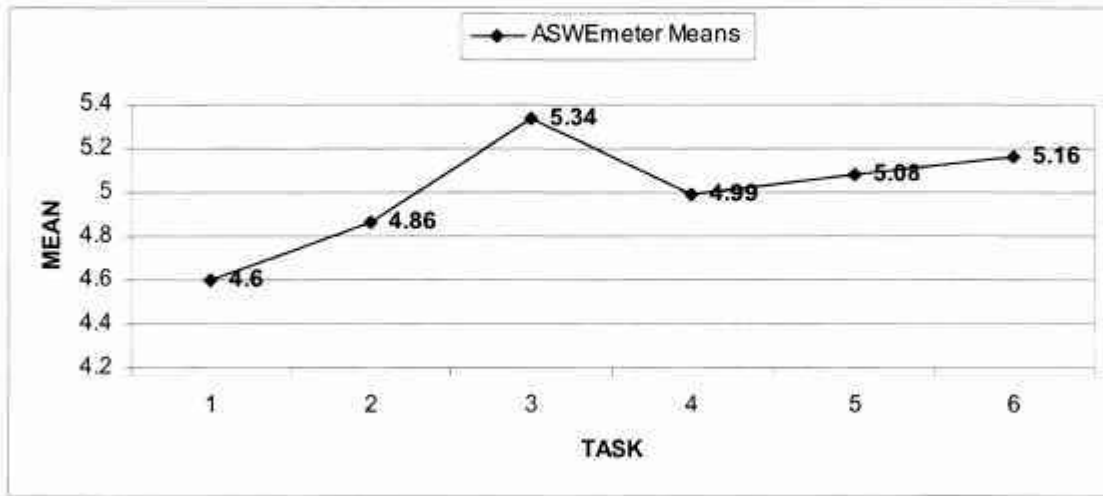


To determine if the differences between the means of the individual tasks were statistically significant, the $p$-values of the mean changes were obtained. These values are presented in Table 9.

Table 9

<u>ASWEmeter mean change $p$-values</u>

| Task Pairs | $p$-value |
|:---:|:---:|
| 1 to 2 | .506 |
| 2 to 3 | .076 |
| 3 to 4 | .141 |
| 4 to 5 | .753 |
| 5 to 6 | .910 |
| 1 to 6 | .143 |

According to the information presented in Table 9, none of the changes in means that occurred between individual tasks was statistically significant. The same is true for the overall mean change that took place between the first and the sixth tasks.

<u>Subjective Attitudes</u>

During the course of the data collection, it was noted that the missionaries were generally resistant to using the ASWE strategy. There were individual missionaries scattered throughout the various experimental districts who were favorable to it, but the teachers' written observations showed that a majority of the participants exhibited negative attitudes. Reports written by the teachers that detailed some of the missionaries' comments helped shed some light on possible explanations for this resistance. The majority of the missionaries' comments can be grouped into three main areas: problems with the strategies on the *How to be a Better Language Learner* document, questions about the relevance of ASWE, and dislike of certain aspects of the ASWE strategy.

The missionaries who complained about the strategy list were in several different districts, but their complaint was the same: the strategies on this document are not applicable to learning language tasks. One missionary commented: "The strategies aren't appropriate for the task at hand." Another one said: "It is impossible to pick a strategy when none are applicable [to the task]." They felt frustrated by this apparent lack of applicability and these negative feelings seem to have increased with every task.

The missionaries' second complaint about ASWE was that it did not seem relevant to their language learning experience. Comments such as "What do we get out of this?" or "What is the benefit of this?" were common. Many seemed to feel that they were investing valuable time into something that was not giving them satisfactory results and that therefore was not worth the effort

The third area of complaint focused specifically on three elements of the ASWE strategy itself that the missionaries disliked: the seemingly obvious nature of some of the

ASWE questions, interruption in the middle of a task, and the shift in focus to new strategies which often do not work well. The first objection refers to the first two ASWE questions ("What am I trying to accomplish?" and "What strategy am I using?") which seemed needless to many of the missionaries. Some described it as "too obvious" or "high school-ish."

The second objection stemmed from the missionaries' feeling that using the ASWE strategy interrupted them in a task, causing them to lose focus, and simply distracted them from what they were trying to accomplish. Some missionaries commented that "being interrupted just distracts me and makes me lose my concentration." Those who voiced the third objection concerning the shift in focus from the strategies that they used habitually to new strategies that sometimes didn't work well, objected because they felt that it needlessly slowed down their learning. One missionary observed: "I feel like I have a personal system and the new program is slowing down my learning to try new things that don't work as well."

Though the majority of the missionaries were negative toward the ASWE strategy, not all of them were. One missionary commented that he liked it and that it was working for him. In another case, a teacher reported that practically his entire district, which he described as the most advanced district he had ever taught in several years of MTC teaching, felt favorable because it was simply "putting a name on what we already do." Yet another missionary remarked that he liked using learning strategies and would appreciate learning more about them. Still others commented that they liked it but they did not specify why.

## Data Collection Issues

Because every data collection process is imperfect, there are issues and unexpected events that occur while data is being gathered. This study is no exception. Some unplanned-for events that took place during this study concern teacher training and several aspects of the MTC schedule.

Prior to the start of the data collection, teachers were asked to attend a training meeting. Only about half of the teachers involved in the study attended the meeting, which meant that the teachers who did not attend did not receive the necessary information. The result was that these teachers had received no information concerning the purpose of ASWE, how to implement ASWE into the tasks, or what the missionaries had been told, until after the pre-test had been administered and the lessons were being taught. At that time, they received the necessary information via written packets while the teachers who had attended filled out a questionnaire to determine if they had biased the study be sharing information with their districts that the other teachers had not shared.

It was also discovered that, in the third week of training, language-learning missionaries attend a meeting about language learning strategies. This meant that the districts in weeks four and six had attended the meeting prior to the start of the study, whereas the week two missionaries had not. The result was that some missionaries involved in the study had received a basic introduction to language learning strategies and were at least somewhat familiar with the strategies listed on the *How to be a Better Language Learner* whereas other subjects were not.

Yet another issue that arose stemmed from the fact that it was not possible for the number of districts needed in the study to participate simultaneously. This meant that the

districts had to be trained and used as they arrived in the MTC, which spread the data collection out over the course of two months. The result of this situation was that multiple training sessions became necessary, and it raised the possibility of differences in the information being given to the various missionary districts. To minimize the chances of this occurring, precautions were taken to duplicate training and collection procedures as accurately as possible for each district by administering training sessions and tests on the same days of the week and at the same time of day. This was possible through carefully following written notes and information in the lessons.

Finally, at the MTC, the language tasks are scheduled during different class periods throughout the day. Because it was important to decrease the intrusiveness of the study as much as possible, the tasks were taught according to this schedule. The result of the time differences is that the missionaries' energy levels and desire to implement the ASWE strategy most likely differed from task to task as well as from week to week, potentially biasing the study results. Each district completed tasks during all three of the class periods, but it cannot be ruled out that there was a potential effect on individual tasks results due to difference in time of day.

Chapter 5

Discussion and Conclusions

This study examined the effects of a self-monitoring, metacognitive learning strategy called ASWE on the language anxiety levels of missionaries at the Missionary Training Center (see Appendix A). An experimental group of six districts implemented the ASWE strategy into their language learning and their anxiety levels were compared to those of a control group of six districts. In addition, the effects of week in MTC training on anxiety levels and whether or not time had an effect on levels of ASWE use were also examined.

Findings of the Study

*ASWE Use and Language Anxiety*

One of the most important findings of the study showed that ASWE use did reduce language anxiety. The decrease in the language anxiety levels of the experimental missionaries was significant and was shown by the ANOVA to be a result of ASWE use. The changes in the thermometer means showed that when ASWE use increased, there was a corresponding decrease in anxiety and vice versa. The only exception to this pattern occurred between the fifth and sixth tasks where the increase in ASWE use was accompanied by an increase in anxiety. A comparison of the first and sixth tasks shows, however, that the overall trend was that anxiety levels decreased in a significant manner as ASWE use increased.

None of the correlations between the ASWEmeters and the anxometer scores of each task was significant, although the correlations for the fifth task did approach

statistical significance. These results, however, can be explained by the presence of individual differences. If every participant had implemented ASWE to the same degree, it is likely that there would still have been differences in the degree of anxiety reduction due to variations between individuals. In this study, the participants implemented ASWE at varying degrees, which increases the likelihood of variation in the thermometer scores. The changes between the means of the ASWEmeters for the six tasks show that even though the degree of change in ASWE use for a particular task differed from the degree of change in anxiety for that task, an inverse relationship between ASWE use and anxiety was still observable. The lack of significance in the Pearson Product-Moment correlations simply indicates that ASWE use did not lower the anxiety levels of every participant in a similar fashion.

*Week of MTC Training and Language Anxiety*

A second finding of this study is that week of training in the MTC has no significant effect on language anxiety levels. There was an increase in anxiety between the second and the fourth week and a decrease in anxiety between the fourth and the sixth week, but these changes in anxiety do not seem to have been significantly affected by week in the MTC.

This is due to the fact that language anxiety is different in nature from the types of anxiety that are typically associated with missionaries. The anxieties that missionaries are usually associated with typically stem from new, MTC-related experiences such as being in a new place, working with a new schedule, or learning to get along with companions. These types of anxieties often are greatly influenced by how long a

missionary has been in the MTC and will usually become less intense as the missionary spends more time in the MTC. Other anxieties, such as those that relate to the being in the foreign country, will often increase in intensity as the missionaries' departure dates draw nearer. It can easily be hypothesized that these types of anxieties *are* affected by the amount of time spent in the MTC.

Language anxiety, however, is a function of actual language learning experiences. It stems from negative associations with language learning that can occur at any point in the learner's language study. Missionaries may have anxiety-arousing experiences regardless of whether they are in the second, the fourth, the sixth, or any other week of their training. Since language anxiety results from experience rather than from length of exposure to the language, it would not be affected by week in the MTC.


*ASWE Use Over Time*

A third finding of this study indicates that the level of ASWE use does not necessarily change significantly over time. In the course of this study, the participants' use of ASWE increased gradually until the third task, where it took a jump. Although ASWE use was lower on the fourth task, it was still higher than the degree of use on either the first or the second tasks, and then rose steadily on the remaining tasks. Analyses of the results showed that even though use increased over time, the increase was gradual enough that none of the task to task changes were of great significance in and of themselves. The fact remains, however, that use of ASWE did increase over time.

One factor that may have had a great influence over ASWE use was that of the missionaries' attitudes. They were generally quite negative about the study and about

having to use ASWE because they felt that they were investing a lot of time and effort for little practical result. This perception lessened their enthusiasm and willingness to implement the strategy, though they continued to do so in a reluctant manner throughout the course of the study. This negative attitude seems to have resulted in little change in ASWE use from task to task.

The fact that ASWE use increased despite negative feelings might be a result of the missionaries becoming more comfortable with the ASWE process. According to pre-test responses about their language strategy use, the majority of the missionaries had never used metacognitive strategies and none of them had ever used ASWE. This meant that the participants were not only using a strategy that they had never used before, but they were also using a type of strategy that was entirely new to them, and which would therefore require some time for adjustment. As their use continued, their comfort levels increased, though the negative perception of ASWE did not. Therefore, it would appear that use of ASWE increased gradually due to the interplay between increasing comfort levels and constant or increasing levels of negative perception.

## Discussion

### Importance of Language Anxiety Reduction

The focus of this study was on language anxiety, but as has been previously noted, the MTC experience typically involves anxieties that stem from sources besides language learning. For example, for many missionaries, their MTC stay is the first time that they have been away from home and so they often experience homesickness. In addition, life at the MTC is markedly different from the missionaries' previous

experiences, because the schedule is rigorous and a high percentage of the missionaries' time is spent studying or in the classroom. These demands can produce a great deal of anxiety in the missionaries, particularly in those who dislike academic activities or who show little aptitude for them. There is also the fact that missionaries are required in the MTC to always be with a companion whom they most likely did not know before coming to the MTC. All of these factors, as well as others, could contribute to fairly high anxiety levels.

When considered in conjunction with these various aspects of the MTC experience, language learning can potentially be considered to be a relatively insignificant source of anxiety and it may seem questionable to devote time and effort to reducing it rather than any of the other anxieties associated with the MTC. Furthermore, the MTC language program includes several features that may help to reduce, or even prevent, high levels of language anxiety. Some of these features pertain to the organization of the classroom whereas others are outside of class.

One of the aspects pertaining to the classroom is the relatively small class size. Classes typically range in size from eight to twelve people, which provides the missionaries with greater interaction with, and one-on-one help from, the instructor. Furthermore, there are normally three teachers assigned to each missionary district so that the missionaries have daily access to different perspectives and solutions to language concerns. Helps from outside of class include the tutoring program, which involves tutors who usually are native speakers of the language and who work with the missionaries on a one-on-one basis. In addition, missionaries are provided with an emotional support group made up of ecclesiastical leaders and organizations. Any or all

of these features can help missionaries to effectively cope with language anxiety as well as with other types of anxiety that they may experience.

Due to the lack of empirical information about these other anxiety sources, it is not known if language anxiety is more or less important than these other types of anxiety. It is common knowledge, however, that in personal interviews with their instructors, missionaries frequently mention concerns such as slow progress with the language or doubts about their ability to learn the language. Furthermore, pre-test anxiety scores showed that both groups were over a third of the way to maximum levels of anxiety, as measured by the pre-test questionnaire. This indicates that language anxiety is not unimportant and though it is only one of several anxieties associated with the MTC experience, reducing it can still facilitate learning.

*Potential Influence of Unexpected Factors*

As has been previously mentioned, there were several unplanned events that occurred during the course of the data collection. These included aspects of teacher training and of the MTC schedule.

Not all of the teachers involved in the study were able to attend a training meeting held prior to the start of the study. This meant that some of the teachers had not received information regarding ASWE's purpose and implementation before the start of the data collection. The teachers who had attended the meeting filled out a questionnaire whose purpose was to determine if they had shared information with their districts that other teachers had not shared. The responses indicated that no teachers had shared information with their districts. While this indicates that no information was

intentionally given out by these teachers, it does not rule out the possibility that they may have done so without realizing it. Since the meeting concerned mainly the purposes of ASWE and the teachers' roles in its administration in their classes, it is likely that any effect from inadvertent teacher comments would be minimal.

It was also discovered that in the third week of training, language-learning missionaries attend a meeting about language learning strategies. This meant that the districts in weeks four and six had attended the meeting prior to the start of the study, whereas the week two missionaries had not. There was the possibility that the information given in that meeting might have biased the study. The strategies meeting, however, focuses on a review of the *How to be a Better Language Learner* document and of an explanation of the Speak Your Language (SYL) program. A review of the document was included in the first lesson, which meant that the missionaries who had not attended the meeting would still have had a chance examine the list prior to starting the study. In addition, the SYL program did not directly affect the study since its focus and purpose are different from those of the study. It is likely that any effect from the strategies meeting on the study results was minimal.

Another potential problem arose from the fact that it was not possible for the number of districts needed in the study to participate in it simultaneously. Instead, districts were trained and used as they arrived in the MTC, resulting in data collection that stretched over the course of two months. This necessitated multiple training sessions, raising the possibility that there might be differences in the information given to the various missionary districts. It is not likely that the effects from the time differences were significant, however, because enough detail from the first training sessions was

written into the lesson plans to enable the researcher to follow the same organization of ideas. Of course, minor differences exist between the actual training presentations, but these are principally due to the fact that the lessons were personalized according to the group being taught.

In addition, the language tasks are scheduled during different class periods throughout the day, which could have affected the missionaries' energy levels and desire to implement the ASWE strategy. Each district completed tasks during all three of the class periods, but there might be a potential effect resulting from difference in time of day.

A final issue that could have significantly influenced the results of the study was the negative attitudes of the missionaries toward ASWE. They felt that ASWE use was irrelevant to their language learning and so they were reluctant to use it. This lack of enthusiasm could have affected the study results by reducing the amount of effort that the missionaries were willing to expend in their efforts to implement ASWE. This resistance was not unexpected because ASWE is a metacognitive strategy, and metacognitive strategies are often perceived as irrelevant because they do not have as direct an effect on language learning as cognitive strategies, which are more commonly used. Since reluctance was expected, Lesson 2 included a section that was intended to help the missionaries to better understand the benefits of ASWE by explaining the value of self-monitoring strategies as a means of redirecting one's learning quickly so as not to waste time and effort. This explanation apparently was not sufficient and perceptions of ASWE as irrelevant may have lowered the missionaries' use of the strategy.

<u>Implications of the Study</u>

This study lends support to the suggestion that metacognitive strategies can help to lower language anxiety levels (Phillips 1991). The current research on language learning strategies has focused on using metacognitive strategies to improve proficiency by giving the learner greater understanding and control of the learning process. If in addition to these aspects, metacognitive strategies can help to reduce language anxiety, the useful value of these strategies greatly increases. This means that the teaching of metacognitive strategies could be of greater importance than has been previously thought and that it is worthwhile to devote time and energy to incorporating a greater degree of strategy training into the language learning experience.

This conclusion is supported by the finding of this study that time spent in the MTC has no significant effect on language anxiety levels. Language anxiety does not diminish or vanish simply because a learner has had more exposure to a language because this type of anxiety is not a function of time; it is a function of the nature of the learner's experiences with language study. Therefore, the best way to decrease language anxiety is to change the learning experience. Since language learning can occur in a variety of places and with a variety of methods, the most effective means of improving learning experiences is to teach learners how to improve it by taking control of it. This can be done through strategy training, and if metacognitive strategy use can help to decrease anxiety as well as increase quality of language production, teaching learners to use metacognitive strategies may be one of the most effective types of strategy training.

## Limitations of the Study

This study found that use of the ASWE strategy helped reduce language anxiety levels. The effectiveness of planning and self-evaluative strategies in anxiety reduction was not examined and therefore, the results of this study may not be applicable to those types of strategies. Furthermore, these results may be applicable only to ASWE and may not hold true for other self-monitoring strategies.

In addition, the results of the study show that ASWE use does reduce anxiety, but they give only a broad, yes-or-no type answer. It was noted that individual differences do play a role in the degree to which strategy use lowers anxiety, but examination of the type and degree of this role was beyond the scope of this study. Therefore, this study offers little information on the nature of the influence of individual differences on either strategy use or anxiety levels.

## Suggestions for Further Study

This study examined the effects of the use of a self-monitoring language strategy, which is one of several types of possible metacognitive strategies for reducing anxiety. Other types include planning and self-evaluative strategies, which are potential candidates for lowering language anxiety and it could prove useful to research these areas. It may be that these strategies differ from self-monitoring strategies in their effectiveness at anxiety reduction. In addition, further research could examine the effects of individual differences on the usefulness of metacognitive strategies as means of reducing anxiety.

Further research on ASWE should focus on ways to lower learner resistance to

ASWE use. In this study, the missionaries' negative opinions stemmed from two principal sources: frustration with the strategies provided on an MTC document and a perception of ASWE as irrelevant to their learning. To decrease the frustration with the strategies list, it might prove useful to give the missionaries guided practice in strategy use. The majority of missionaries in this study had little or no background exposure to language strategies and thus they were uncomfortable trying to use them. It might be useful to incorporate strategy use into the language lessons that are already taught. Each lesson could incorporate one strategy from the *Language Learner* document to practice as part of the lesson, as well as suggestions of other strategies that the missionaries could try on their own. Teachers could be taught how to teach the strategies at the time when they are hired and the teaching of strategies could be the subject of periodic teacher training meetings. The missionaries should be given a couple of weeks to become comfortable with strategy use before learning about and implementing ASWE.

The missionaries' resistance to ASWE was due also to a perception of the strategy as irrelevant to their learning. Dr. Kirk Belnap of the Department of Asian and Near Eastern Studies at Brigham Young University has suggested that resistance might be decreased if ASWE were presented using scriptural examples. He cited the story of the Creation, in which God uses planning, self-monitoring, and self-evaluative strategies as He creates the earth. Another possible example is found in the *Book of Mormon* in Alma 54-55, where Captain Moroni uses what could be termed a self-monitoring strategy to rescue prisoners of war from the enemy. Through scriptural examples, missionaries could better understand ASWE's relevance and be more willing to incorporate it in their language learning.

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## The ASWE Language Learning Strategy

Sharpening AS WE Saw

1. What am I trying to **Accomplish?**

2. What **Strategy** am I using?

3. How well is it **Working?**

4. What **Else** could I do?

## Missionary Language Learning Questionnaire  (FLCAS)

**Instructions:**  We are studying language instruction at the MTC.  Your responses to these items will help us understand more about missionaries' feelings and experiences as they learn their mission language.  Your responses are confidential, will be used only for research purposes, and will not be shown to your teachers / other missionaries.  Please indicate how strongly you agree or disagree with each statement below by choosing an answer from the key and writing the letter (A,B,C,D,or E) next to the number of the item.

> **Key:**   **A = strongly agree**
> **B = agree**
> **C = undecided**
> **D = disagree**
> **E  = strongly disagree**

1.  I feel confident when I speak in my mission language.

2.  It frightens me when I don't understand what the teacher is saying in the language.

3.  I worry about the consequences of not learning my mission language well enough.

4.  I think I am learning the language about as well as most missionaries

5.  I am afraid that my teacher is ready to correct every mistake I make in the language.

6.  During the language lessons, I can get so nervous I forget things I know.

7.  It embarrasses me to volunteer answers in the language.

8.  I would **not** be nervous speaking the foreign language with native speakers.

9.  I get upset when I don't understand what the teacher is correcting me on.

10. I often wish that I didn't have to be in class during language lessons.

11. I feel comfortable having the teacher call on me in a language lesson.

12. I never feel quite sure of myself when I am speaking in my mission language.

13. I can feel my heart pounding when I'm going to be called on during a language lesson.

14. It doesn't bother me when I have to speak without preparation in the language.

15. The more I study the language, the more confused I get.

16. I always feel that the other missionaries speak the language better than I do.

17. I *don't* worry about making mistakes in the language.

18. I feel very self-conscious about speaking the language in front of other missionaries.

19. I would probably feel comfortable around native speakers of the language.

20. We go through the language lessons so quickly that I worry about getting left behind.

21. I feel more tense and nervous during the language lessons than during other classroom activities.

22. I don't understand why some people get so upset over learning a foreign language.

23. I get nervous and confused when I am speaking in the language.

24. When I'm on my way to language class, I feel very sure and relaxed.

25. I feel overwhelmed by the number of rules you have to learn to speak a foreign language.

26. I am afraid that the other missionaries will laugh at me when I speak the language.

27. It doesn't bother me when I don't understand every word the teacher says in the language.

28. During language lessons, I find myself thinking about other things that have nothing to do with the lesson.

29. I get nervous when the teacher asks questions that I haven't prepared in advance.

30. It wouldn't bother me at all to take more foreign language classes after my mission.

Do you ever stop in the middle of a language task or activity and remind yourself what your purpose is in doing the activity? If so, how often do you do this?

During a language task, do you ever think about any tricks or gimmicks you might be using to help you with the task or activity? If so, how often do you do this?

In the middle of a language task or activity, do you ever stop to examine any tricks or gimmicks you might be using to see if they are helping you to your satisfaction? If so, how often do you do this?

If you said yes to the last question, if you find a trick or gimmick that isn't very helpful for you, do you stop and think about other possible gimmicks that might work better and then immediately try to implement them? If so, how often do you do this?

Appendix C

Language Questionnaire

Please indicate how strongly you agree or disagree with each statement below by choosing an answer from the key and writing the letter (A,B,C,D,or E) next to the number of the item.

**Key:**    **A = strongly agree**

       **B = agree**

       **C = undecided**

       **D = disagree**

       **E = strongly disagree**

1. The more I study the language, the more confused I get.

2. I think I am learning the language about as well as most missionaries

3. I feel comfortable having the teacher call on me in a language lesson.

4. I often wish that I didn't have to be in class during language lessons.

5. I feel more tense and nervous during the language lessons than during other classroom activities.

6. I can feel my heart pounding when I'm going to be called on during a language lesson.

7. I get nervous and confused when I am speaking in the language.

8. It frightens me when I don't understand what the teacher is saying in the language.

9. When I'm on my way to language class, I feel very sure and relaxed.

10. It wouldn't bother me at all to take more foreign language classes after my mission.

11. It doesn't bother me when I have to speak without preparation in the language.

12. We go through the language lessons so quickly that I worry about getting left behind.

13. I *don' t* worry about making mistakes in the language.

14. I get upset when I don't understand what the teacher is correcting me on.

15. I would *not* be nervous speaking the foreign language with native speakers.

16. I feel confident when I speak in my mission language.

17. I am afraid that the other missionaries will laugh at me when I speak the language

18. During the language lessons, I can get so nervous I forget things I know.

19. I always feel that the other missionaries speak the language better than I do.

20. It embarrasses me to volunteer answers in the language.

21. It doesn't bother me when I don't understand every word the teacher says in the language.

22. I get nervous when the teacher asks questions that I haven't prepared in advance.

23. I would probably feel comfortable around native speakers of the language.

24. I worry about the consequences of not learning my mission language well enough.

25. I never feel quite sure of myself when I am speaking in my mission language.

26. I don't understand why some people get so upset over learning a foreign language.

27. During language lessons, I find myself thinking about other things that have nothing to do with the lesson.

28. I am afraid that my teacher is ready to correct every mistake I make in the language.

29. I feel overwhelmed by the number of rules you have to learn to speak a foreign language.

30. I feel very self-conscious about speaking the language in front of other missionaries.

## Lesson 1

GENERAL INTRODUCTION TO LANGUAGE LEARNING STRATEGIES

Concept 1: The Importance of Using the Right Tool

- Ask how many of the missionaries have ever worked on a construction project.

- Show a transparency of a hand saw and a power saw, and explain that some tools are more effective than others and that the effectiveness of a tool often depends on what the goal of the task is.

- Explain that language learning is like building a house in that some tools are better than others for accomplishing that specific task.

Concept 2: The Goal of Language Learning for Missionaries

- Ask how many of the missionaries have studied a foreign language previously.

- Ask those who have what their learning goals were.

- Ask what the language learning goals for missionaries are (e.g., to speak the language well enough to teach the Gospel, to understand the spoken language, to read the language, etc.).

Concept 3: The Importance of Second Language Ability in Missionary Work

- Show a transparency of the Marion G. Romney quote (October 1961): "The chief difficulty to good missionary work is the inability of the missionaries to speak [foreign languages]."

- Explain that second language ability is critical in missionary work.

- Show and discuss briefly three transparencies about language barriers. (These transparencies are found in *Language Learning Strategies for Missionaries:*

*Classroom Training Material*, a booklet published by the MTC.)

1.  *When Missionaries Speak a Second Language*

2.  *Low Missionary Effectiveness*

3.  *High Missionary Effectiveness*

Concept 4: <u>Misconceptions about Second Language Learning</u>

- Ask the missionaries what they have heard about language learning in the MTC.

- Show and discuss a transparency *Misconceptions about Language Learning*.

  Briefly discuss the five language learning misconceptions from the transparency:

  1.  You will learn the language while you are in the MTC

  2.  The Spirit will automatically give you the ability to speak the language

  3.  Learning a second language is simply finding equivalent words in that
      language

  4.  You will learn a language simply by being exposed to it

  5.  Not everyone can learn a second language

- Ask who is primarily responsible for the missionaries' language learning. (They
  are).

Concept 5: <u>Different People Learn A Second Language Through Different Methods</u>

- Discuss language learning method differences

  * Working with others vs. working alone

  * Writing vs. listening

  * Checklists vs. spontaneous activities

- Explain that it's okay for each missionary to use language learning methods that
  work best for him or her, and that it's also good to try new methods.

Concept 6: Language Learning Strategies

- Have the missionaries locate the *How to be a Better Language Learner* document.

- Explain that this document identifies some of the more effective language learning strategies, but that there are many, many others that are also effective.

- Review these strategies in general, and briefly discuss some from each section.

Conclusion: Preview of Lesson 2

- Explain that there will be a second lesson about a metacognitive strategy called ASWE.

Appendix E

<u>Lesson 2</u>

INTRODUCTION TO THE ASWE LANGUAGE LEARNING STRATEGY

Concept 1: <u>Metacognitive Strategies</u>

- Explain to the missionaries that "meta" means "above" and "cognitive" refers to thinking, and that with respect to language learning, metacognitive strategies focus on methods of thinking that facilitate the learning of a second language.

- Have the missionaries locate their *How to be a Better Language Learner* document and review the metacognitive strategies in the "Maximizing" section.

- Explain that the purpose of metacognitive language learning strategies is to organize and give direction to learning activities in ways that will increase the chances of meeting language learning goals.

- Explain that there are different types of metacognitive language learning strategies, including:

    1. Planning. Planning strategies are used before language learning activities to help determine how to meet language learning goals.

    2. Self-monitoring. Self-monitoring strategies are used during language learning activities to enhance the efficiency of those activities by helping to keep the learner focused or to help the learner to get re-focused on the goals of the learning activities.

    3. Self-evaluative. Self-evaluative strategies are used after language learning activities to help determine whether the learner's language learning activities led to the learning goals, and if not, why not.

- Explain that metacognitive language learning strategies are indirect and that they are most effective when they are used in conjunction with other language learning strategies, especially cognitive ones.

- Describe this concept with an analogy of a marionette puppet: The metacognitive strategies are the strings and the other strategies are the body members -- head, hands, legs, feet, etc. In the learning process the learner focuses on the movements of the puppet, but the strings control those movements.

- Give an example of this concept by explaining that a language learner could enhance the cognitive strategy of practicing pronunciation with the metacognitive strategy of planning when to do this practicing.

Concept 2: ASWE

- Explain that ASWE is a self-evaluating metacognitive language learning strategy.

- Show the transparency of the ASWE saw (see Appendix A) and describe the four ASWE strategy questions:

    1. What am I trying to Accomplish?

    2. What Strategy am I using?

    3. How well is it Working?

    4. What Else could I do?

- Describe the step-by-step process of the ASWE model:

    1. A language learning goal is identified, e.g., offering a prayer.

    2. A discrete part of the task is selected, e.g., pronunciation.

    3. A strategy from the *How To Be a Better Language Learner* document is selected, e.g., the fourth Speaking strategy, "When you hear a new word

or phrase, repeat it quietly to yourself several times, actually moving your lips, until you can say it with ease."

4. This cognitive strategy is applied, e.g., the prayer phrase is repeated several times.

5. The ASWE (metacognitive) strategy is applied, e.g., after the prayer phrase is repeated several times, the learner pauses to evaluate the effectiveness of the (cognitive) strategy by asking himself or herself the four ASWE questions. If the learning strategy is working, the learner may continue using it or come back to it later. If the learning strategy is not working, the learner can select another strategy and repeat the process.

ASWE Strategy Practice

1. Becoming Acquainted Activity (Vocabulary Learning)

   - Write the following phrases on the chalkboard:

     * Bonjour, Comment allez-vous?

     * Bien merci

     * Comment vous appelez-vous?

     * D' ou venez-vous?

   - Divide the missionaries into pairs and have them practice choosing and using language learning strategies to learn these phrases.

   - After a few minutes, have them discontinue their language practice and evaluate the effectiveness of the language learning strategies they used, using the four ASWE evaluation questions.

   - Discuss the missionaries' use of the ASWE evaluation questions in evaluating

the language learning strategies they used in the activity.

2. Offering a Prayer (Speaking Practice)

- Write the following phrases on the chalkboard:

  * Notre cher Pere Celeste

  * Nous to remercions de Jesus-Christ

  * du Livre de Mormon

  * du prophete

  * de toutes nos benedictions

  * Nous te demandons de nous benir

- Divide the missionaries into pairs and have them practice choosing and using language learning strategies to learn these phrases.

- After a few minutes, have them discontinue their language practice and evaluate the effectiveness of the language learning strategies they used, using the four ASWE evaluation questions.

- Discuss the missionaries' use of the ASWE evaluation questions in evaluating the language learning strategies they used in the activity.

# HOW TO BE A BETTER LANGUAGE LEARNER

## MAXIMIZING YOUR LANGUAGE STUDY

- Study the language daily throughout your entire mission.
- Make goals for language learning (both long-term and short-term goals).
- Plan out your study time, focusing on those activities that are most helpful.
- Review previously learned material regularly.
  - When studying or using the language, follow the **SHARPENING AS WE SAW** process to monitor what strategies you are using and how well they are working.
  - Beware of fossilizing; strive continually to improve and to achieve a higher level of proficiency.

### Sharpening AS WE Saw

1. What am I trying to **Accomplish**?
2. What **Strategy** am I using?
3. How well is it **Working**?
4. What **Else** could I do?

## SPEAKING

- **SYL** Follow the SPEAK YOUR LANGUAGE Program
- Take advantage of every opportunity to speak; do as many of your daily activities as possible in the language.
- Initiate conversations with native speakers or others that speak the language well and actively participate in the conversation.
- When you hear a new word or phrase, repeat it quietly to yourself several times, actually moving your lips, until you can say it with ease.
- If you don't know how to say something in the language, try to say it another way rather than in English.
- Imitate the pronunciation and intonation of native speakers.
- Practice using grammar rules and new vocabulary you have learned in your everyday speech.
- Be willing to take risks; don't let fear of making mistakes keep you from speaking.

### Speak Your Language

*Use* what you know —Do everything you can to use the language elements (e.g. vocabulary, phrases, and grammar) to which you have been exposed.

*Try* first in the language — Don't wait until you can say things perfectly. Be creative.

*Ask* permission — If you can't figure out how to say something after an honest effort, ask permission (in the language) to say that one thing in English.

*Find out* how — When English is necessary, use resources such as teachers, dictionaries, other missionaries, notes, and software to find out how to say it in the mission language.

*Write* it down — Keep a small notebook with you at all times to write down things you found out or things you want to find out.

*Do* something more — Go the extra mile by learning things on your own that *you* want to know.

## LISTENING

- Listen for things that native speakers say and write them down; incorporate them in your own speech.
- Use your knowledge of the context and situation to understand what the other person is saying.
- If you don't understand what someone says, ask them to repeat it or to slow down.
- Listen for the main ideas; don't worry if you don't understand every word that you hear.

## READING

- Read daily from the Book of Mormon or other materials in the language.
- Look for cognates (words that are similar to English words you know) to help you understand what you are reading.
- If you don't understand a word, try to figure out the meaning from the context of the sentence or paragraph before looking it up.
- Pay attention to grammatical markers such as particles, verb conjugations, or word endings that might give clues about the meaning.

# WRITING
- Write everyday things in the language (e.g. letters, talks, notes from meetings, journal entries).
- Have your teacher or others help you revise what you write in the language.

# LEARNING GRAMMAR
- Break sentences down into their grammatical parts; for example, identify the subject, verb, word endings, etc.
- Analyze the grammar rules for similarities and differences with your native language.
- Look for and use patterns in the language. Look for examples of grammar patterns in native speech or writing.
- Practice using grammar rules in drills and exercises until you can apply the rules accurately and consistently.
- When you encounter a new situation, try to apply patterns or rules you have already learned.

# LEARNING VOCABULARY
- Whenever possible, learn vocabulary in context rather than as isolated lists.
- Remember new words by associating them with similar-sounding words, or with mental images or pictures.
- Learn new vocabulary by paying attention to words and expressions you read in books, messages, and street signs, and to those you hear used by fluent speakers.
- When studying vocabulary, put the words in meaningful sentences, phrases, or groups to help you remember them.

# LEARNING LANGUAGE TASKS
- Identify a language task that you may need to do in the future (e.g. making an appointment or giving a talk); go through the task in your mind and split it into subtasks.
- Identify and learn vocabulary and phrases that can be used to accomplish the task.
- Identify and study sentence patterns and grammar rules that are used in accomplishing the task.
- Have a native speaker model the task or show you how to do it.
- Predict the other person's possible responses and decide how you would respond to them.
- Practice doing the task in several different contexts—with investigators, members, other missionaries.

# LEARNING MISSIONARY DISCUSSIONS
- Learn an outline of the discussion in sequence (discussion titles, principle titles, and paragraph headings).
- Learn the meaning of each paragraph; for example, read the paragraph to find the main ideas, look up unfamiliar words, or translate the passage into English.
- Practice saying each paragraph aloud many times until you can present it with only occasional glances at the written text.
- Write key words in the mission language alongside each paragraph and say the paragraph in our own words using the key words as prompts.
- Practice the discussion over and over in a variety of contexts—to different types of investigators, to different age levels, to people with different types of concerns, etc.
- Teach the content of a discussion in your own words in a different format (e.g. sacrament meeting talk, street contact, answer to an investigator's question).

# SPIRITUAL AND MENTAL PREPARATION
- Pray for help in learning the language and remember to give thanks for every little improvement you make.
- Try to think in the language.
- Try to learn all you can about the culture of the place where the language is spoken.
- When you are feeling stressed about learning the language, try to relax, use humor, and/or make encouraging statements to yourself.
- Exercise faith that the Lord will help you learn your mission language.
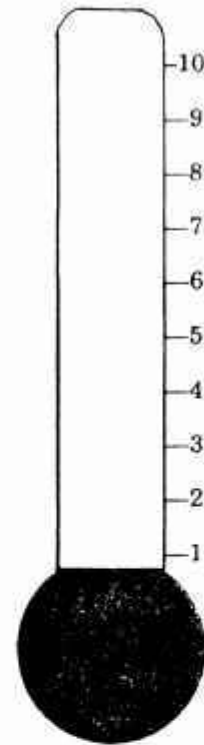
## ASWEmeter and Anxometer Scales

# HOW ANXIOUS ARE YOU ?

Anxious is a negative term. It means feeling

stressed, worried, uncertain, nervous, and/ or tense, etc.

(NOTE: 1 is the lowest, 10 is the highest)

# HOW WELL DO YOU FEEL

# THAT YOU ARE USING THE

# ASWE?

In other words, how well do you feel that you are

using the method (i.e., asking yourself the questions,

answering them the best you can, and applying your

answers to what you are actually doing).

(Note: 1 is the lowest, 10 is the highest)